

THE ARAB-ISRAELI CONFLICT: THE WAR OF ATTRITION AND PREPARATIONS PRECEDING THE OCTOBER 1973 WAR

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

JERRY R. THORNBERRY, MAJ, USAF B.S., University of Wisconsin, 1973

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9. ABSTRACT (Continued)

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The study concludes that Egyptian preparations for the October War included recognizing their failures and Israeli strengths and weaknesses of the Six-Day War, then vigorously applying corrective measures, while the Israelis analyzed the weaknesses of the Egyptians and their own strengths after the Six-Day War, then did little to reassess those views, retaining the perception of their strength and the Egyptian weaknesses.

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

THE ARAB-ISRAELI CONFLICT: THE WAR OF ATTRITION AND PREPARATIONS PRECEEDING THE OCTOBER 1973 WAR. An analysis of Israeli and Egyptian war preparations between the end of the Six-Day War in 1967 and the October War of 1973, by Major Jerry R. Thornberry, USAF, 162 pages.

This study is a historical analysis of two definitive periods of the conflict between Israel and Egypt - the War of Attrition between July 1967 and August 1970, and the period of "No Peace, No War" between August 1970 and 6 October 1973. The study discusses the lessons learned by Egypt and Israel following the Six-Day War. The lessons of the Six-Day War were not lost on the Egyptian leaders. President Nasser's assessment of the military aspects of the war revealed several shortfalls in Egypt's military capabilities and superiorities of Israel's forces which needed modifying before Egypt could successfully mount a campaign against Israel. President Sadat believed Israel's intrasigence on retaining the occupied territories could only be changed by taking actions which would cause the United States, the Soviet Union, and the United Nations to become involved. Sadat's decision to go to war was a political gamble designed to end the stalemate. Israel's military leaders' constantly underrated the Egyptian's armed forces potentials. Military and political leaders continually misread Nasser's and Sadat's intentions and their resolve to regain the occupied territories. <

Among the conclusions which were drawn from this study are: The Egyptians prepared for the October War by correcting their deficiencies in the Six-Day War - restructured the High Command, improved training methods, developed new tactics, incorporated new equipment into the armed forces, constructed a high-density surface-to-air missile system, and neutralized the Israeli superiorities of the air force, mobile ground forces, and rapid mobilization of reserves. The Israelis prepared by developing a static defense strategy along the Suez Canal.

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TABLE OF CONTENTS

Chapter		Page
	Title Page	i
	Approval page	ii
	Abstract	iii
	Table of Contents	v
ī.	INTRODUCTION	1
	Endnotes	10
II.	THE WAR OF ATTRITION July 1967 - August 1970	11
	Endnotes	47
111.	EGYPTIAN PREPARATIONS FOR LIBERATION OF THE SINAI	51
	Endnotes	82
IV.	THE ISRAELI PERSPECTIVE	85
	Endnotes	106
v.	CONCLUSION	109
	Endnotes	123
VI.	SURVEY OF LITERATURE	125
	Endnotes	132
APPENDIX		
APPENDIX	2 Appendix 2-1 Pre-1947 Palestine Appendix 2-2 UN Partition Plan - 1947 .	

Appendix	2-3	Israel 1947-1967	•	. 145
Appendix	2-4	Israel 1967-1973		. 146
Appendix	2-5	Incidents along Canal		. 147
Appendix	2-6	IDF Casualties		. 148
Appendix	2-7	Egyptian C ² - Pre 1967		. 149
Appendix	2-8	Egyptian C ² - Pre 1973		. 150
BIBLIOGRAPHY			-	. 152
INITIAL DISTRIBUT	ION L	IST		. 157

CHAPTER I

INTRODUCTION

The Middle Eastern region has a long history of military and political unrest. Since 1947 and the creation of the state of Israel in Palestine, a number of wars between Israel and the neighboring Arab states have been waged. The preceding three wars that Israel and the Arabs fought in 1947-1948, 1956, and 1967 ended with defeat of the Arab armies and expanded Israel's borders (see Appendix 2-1 through 2-3). The wars did not bring peace to the region; they only increased the hatred between the belligerents. 1

This thesis provides a comprehensive history and analysis of the preparations made by Egypt and Israel between the Six-Day War of June 1967 and the October 1973 War. In doing so, it will inform interested military professionals of lessons learned by Egypt and Israel following the Six-Day War. It will show how Egypt applied these lessons to prepare for the liberation of the Arab territories occupied by Israel after the Six-Day War. Futhermore, it will detail the Israeli preparations and the errors and misperceptions that evolved in its military and political strategies. Finally, it will determine what the Egyptian objectives were in preparing for the campaign — politically and

militarily (what did Anwar Sadat hope to achieve?).

Two definitive periods are analyzed - the War of Attrition between July 1967 and August 1970, and the period of "No Peace, No War" between August 1970 and 6 October 1973.

between 1967 and 1973, we need to understand the state of affairs in Egypt and Israel immediately following the Six-Day War. The territorial gains made by the Israelis after the 1967 Six-Day War were substantial (see Appendix 2-4). The expanded borders included the Sinai Peninsula (more than 20,000 square miles of Egyptian territory east of the Suez Canal); the West Bank of the Jordan River, including all of Jerusalem (from Jordan); and the Golan Heights northeast and east of the Sea of Galilee (from Syria). The Golan Heights was strategically important because it overlooked much of northern Israel and the plains east of Damascus, Syria.

For the first time in its short history, Israel had strategic defensive depth between its major population centers and the neighboring Arab states.

This gave the Israelis a "false" sense of security and a strategic option. This sense of security was well illustrated in a statement by Israel's Minister of

Defense, Moshe Dyan, just a few weeks prior to the outbreak of the October 1973 War. He stated:

"The conclusion of the Six-Day War *[5 June 1967 - 10 June 1967]*, with its resultant trauma for the Arab world, created an atmosphere, particularly in Israel, indicating that an end had been reached in the wars of Israel with the various Arab countries." *

Thus the scene was set, at least from the Israeli point of view, that after the decisive defeat of the Arab armies in June 1967 peace would come to the war-torn nation of Israel. The captured territories provided a buffer zone between the Arab states and Israel. The Arab armies were shattered and the fighting capabilities of the Israeli Defense Force (IDF) were proven far superior to the Arabs.

The emotional and political impact on the Arabs of the 1967 defeat was staggering. From the Arab perspective, the emotional defeat after the war can best be visualized from a statement made by Egyptian President Gamel Abdel Nasser. He stated that he felt:

". . . like a man walking in a desert surrounded by moving sands, not knowing whether, if he moved, he would be swallowed up by the sands or would find the right path." *

In spite of the great loss, the Arab pride and self-image were soothed by their perception (viewpoint) of what had happened. The Arab's perceptions and reaction to the 1967 defeat was to deny it ever

happened. This denial took a number of forms: political, ideological, and linguistic. 7

The joint political policy of denial towards

Israel was formulated at the Khartoum Summit Conference

29 August to 1 September 1967. The stated Arab

position adopted by the participants of the Conference

is reflected in this excerpt from Article Three of the

Resolution:

"The Arab heads of state have agreed to unite their political efforts at the international and diplomatic level to eliminate the effects of the aggression and to ensure the withdrawal of the aggressive Israeli forces from the Arab lands which have been occupied since the aggression of June 5. This will be done within the framework of the main principles by which the Arab states abide, namely no peace with Israel, no recognition of Israel, no negotiations with it, and insistence on the right of the Palestinian people within their own country."

By adopting this resolution, the Arab leaders refused to accept the existence of their conqueror.

They expressed this denial linguistically in descriptive phraseology as uncompromising as their political statements. Officially, the description of defeat was expressed as "al-naksa" (the setback or the degeneration). The term "hazima" (defeat) was used only infrequently to explain the real situation.

Occupation of Arab lands by Israel was characteristically termed, the "consequences of the aggression."

Ideologically, Arabs generally explained away their military defeat by Israel on three factors.

Nasser elaborated on the first factor in June 1967, when he stated that the Arab forces should not have expected to win with Israeli receiving United States military, economic, and moral support. The second factor was described by King Hussein of Jordan when he stated that Arab morale had not been broken or weakened; therefore, Israel had not won a real military victory. Israel's war aims — "the destruction of Arab radical regimes" — had not been accomplished. Finally, only a battle against Israel had been lost, not the war. The war was now entering a new phase. 10

This phase would adopt a new strategy developed by Egypt, who believed that Israel could be defeated through a long-term "attritional war." A war that Nasser believed would decrease the Israeli technological and military superiority, make Israeli retention of the lands too expensive in terms of monetary and casualty losses, and attain parity between the IDF and Arab armies.

President Nasser began planning how to redeem

Arab respect. He would conduct an "attritional war"

against the Israelis in an attempt to restore Arab

self-esteem and to recover territories lost to Israel

during the Six-Day War. The next three years (1967 - 1970) would be crucial to Nasser's overall plan.

However, Nasser did not live to see the culmination of his strategy. With his death in 1970, the responsibility for its execution rested with his successor, Anwar Sadat. The conflict then entered another phase (1970 - 1973), a period of "No Peace, No War". 11 Although the strategy during this six year period did not recover lost territories, it did lay the groundwork for the October War.

The October War is also known as the "Yom Kippur War" in the West and the "Ramadan War" in the Arab countries; I will refer to the war throughout this thesis as the October War.

To control the length of this study, restrictions have been imposed. This thesis is restricted to only Israeli-Egyptian preparations that impact operations which occurred along the Suez Canal and in the areas adjacent to the Canal. It does not discuss either the Israeli-Syrian preparations north and east of the Sea of Galilee on the Golan Heights, or the Israeli-Jordanian regions along the Jordan River between the Sea of Galilee and the Gulf of Aqaba. The military preparations in these regions did not directly affect the military preparations along the

Suez Canal, therefore, they will not be discussed in this thesis. However, political discussions between Egypt, Syria, and Jordan which affected Egyptian preparations will be discussed. Further, this thesis will analyze the events that occurred prior to the onset of the October War.

The methodology was based on an historic research of English language documents, periodicals, books, and professional military studies. The analysis and arguments supporting this thesis and its conclusions and recommendations are based on these primary and secondary materials. Research occurred in the Fort Leavenworth Combined Arms Research Library. Documentation for this thesis was restricted to available unclassified sources.

The War of Attrition, the period between July 1967 and August 1970, will be discussed in Chapter II. Emphasis will be on the Egyptian strategy and the counterstrategy taken by Israel. It will look at the three phases of the attritive war Nasser would undertake to recover the occupied territories and restore Arab pride and morale.

Chapter III will analyze the Egyptian

preparations from August 1970 to 6 October 1970. With

the ascendancy of Anwar Sadat to the Presidency of

Egypt, the war with Isreal took a different course. I will discuss the political and military preparations that occurred, the revitalization and transformation of the Egyptian military, and the Egyptian attempts to solidify Arab cooperation into a unified coalition against Israel. I will discuss the Soviet impact on the Egyptian Army and the circumstances that led to the "expulsion" of the Soviet advisors.

Chapter IV will describe the Israeli
preparations after the War of Attrition. I will
analyze the strategic changes Israel developed and how
these changes led to a different concept of defense. I
will discuss the preparations that Israel takes to
prepare for war with Egypt. Finally, I will discuss
the Israeli intelligence failure and political and
military misperceptions about Egypt.

In Chapter V I will provide some conclusions based on my analysis of the Egyptian-Israeli actions preceding the October War. Chapter VI provides a review of literature relating to the study. Because of the vast amount of material on the subject, this review attempts to delimit the scope of literature available to aid future researchers of this subject.

Appendix 1 is a glossary of terms, acronyms, and abbreviations used in this thesis. Appendix 2

contains reference maps and tables used in this thesis.

I retained Arab and Israeli words and proper names in the Anglicized form for familiarity and ease of reading.

CHAPTER I

ENDNOTES

- Harvey Sicherman, The Yom Kippur War: End of Illusion? (1976): 5-6.
- ² Chaim Herzog, The Arab-Israeli Wars: War and Peace in the Middle East (1984): 195.
- Chaim Herzog, The War of Atonement, October 1973 (1975): 3.
 - + Herzog, The Arab-Israeli Wars: 195.
 - Peter Allen, The Yom Kippur War (1982): 16.
- Dohn W. Amos II, Arab-Israeli Military and Political Relations: Arab Perceptions and the Politics of Escalation (1979): 69.
 - 7 Ibid.
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 - 10 Ibid.: 70.
- 11 Mohamed Heikal, The Road to Ramadan (1975): 164.

CHAPTER II

THE WAR OF ATTRITION July 1967 - August 1970

"The first priority, the absolute priority in this battle is the military front, for we must realize that the enemy will not withdraw unless we force him to withdraw through fighting. Indeed there can be no hope of any political solution unless the enemy realizes that we are capable of forcing to him to withdraw through fighting." ¹

This statement, made by President Nasser and quoted in the newspaper Al-Ahram on 21 January 1968, sums up the Egyptian strategy used during the subsequent three year period to regain the territory lost during the Six Day War. Nasser was realistic in his estimate of the chances of Israel withdrawing from territories occupied since the Six-Day war without direct military force. He viewed Israel's refusal to accept a political settlement, United Nations' Security Council Resolution 242, which coincidentally had been endorsed by both the United States and the Soviet Union, as leaving only a military alternative to the problem.

The basic principles contained in Resolution 242 were: (1) a withdrawal of Israeli forces from territories occupied in the Six-Day War, (2) cessation of hostilities by all parties, (3) respect for each others sovereignty and independence, and (4) their

borders free from threats or acts of force. Other articles of the resolution stated the need for guaranteeing freedom of ships to navigate through international waterways in the area; for achieving a just settlement to the refugee problem; and for guaranteeing territorial integrity through establishment of demilitarized zones. 2

Ambiguities in the first principle of
"withdrawal of Israeli forces from territories
occupied" was a basis of contention between Israel and
Egypt. Egypt interpreted it as withdrawal from "all
territories," while Israel interpreted it as withdrawal
from "part or some of the territories." Israel's
interpretation would allow it to adjust its borders and
retain the strategy of defense in depth that it had so
long desired. 3

There were also disagreements between Israel and Egypt concerning the steps to be taken for peace negotiations. Israel demanded the following steps:

"(1) direct negotiations between Israel and the Arab states, leading to (2) a peace treaty, followed by (3) Israeli withdrawal to the borders agreed upon in negotiations." * Egypt insisted on the following order for negotiations: "(1) Israeli withdrawal to the

pre-1967 lines, before (2) indirect negotiations
through the United Nations, (and not directly with
Israel, which would have meant recognizing Israel as a
legitimate entity) leading to (3) a peace agreement."
It would be difficult to have a more divergent
requirement for peaceful negotiations than these steps
outlined between Israel and Egypt. Although some
concessions were made by both Israel and Egypt, the
gulf between them continued to be insurmountable for
peaceful negotiations. In the context of these
disagreements, Nasser elected to take the military
option of forcing Israel to return the occupied
territories.

In September 1967, Nasser delivered a speech to a mass demonstration prior to a meeting of the People's Assembly in Cairo. During this speech he elaborated on the strategy to be used against Israel stating:

"...that all that had been taken by force could only be returned by force . . . Egyptian military policy . . . [would be] based on three phases: the 'defensive rehabilitation' phase, the 'offensive defence' phase and, finally, the 'liberation' phase" *

Sporadic fighting, at many times extremely fierce, continued between Egypt and Israel from 1 July 1967 to 8 August 1970, when both countries agreed to a ceasefire originally proposed by the United States Secretary of State William Rogers. This period of

conflict, known as the "War of Attrition", executed Nasser's three military phases. 7

The "defensive rehabilitation" phase was roughly between 1 July 1967 and September 1968, "roughly" because there are varying dates given for the start of the War of Attrition. The purpose of this stage of Nasser's plan was to rebuild the battered armed forces and prepare the country for a longer period of conflict to eventually drive the Israelis from the occupied territories. During this period the Soviet Union began a massive rebuilding and rearming of the Egyptian forces with quantities and qualities of arms that surpassed the equipment lost during the Six-Dav War.

The cost of maintaining forces along the Canal proved expensive to Israel, and especially, Egypt.

Egypt's main source of revenue was the Suez Canal, approximately 260 million dollars a year. This source of income, however, had been closed to traffic because of ships sunk by both Israel and Egypt during the Six-Day War. With its closing, Egypt's primary source of hard currency was lost. Further compounding the loss of revenue from the canal was the decrease of income from tourism and loss of income from the

flew to Moscow with the weapon's "shopping list." They concluded the biggest Soviet arms deal to date.

Included in the deal were 100 MIG-21s, several MIG-17, MIG-15, and SU-7 aircraft, MI-8 helicopters, a brigade of mobile SAM-6 missiles, and ZSU-23mm antiaircraft guns. The Egyptians believed that these arms were still insufficient to repel Israeli air strikes if they were going to cross the Suez Canal. 11

Behind the scenes and in secrecy of the Soviets and all but a few of the senior Egyptian staff members, the Egyptians were developing an even more limited offensive plan, "The High Minarets" plan. This plan:

". . . was based more closely on the actual capability of our armed forces, as opposed to some notional capability after untold arms shipments. Its objectives were the limited goal I *General Shazly** had set of a five or six-mile penetration."

The preparation and planning of Operation 41 and High Minarets continued through the rest of 1971 and into 1972. Operation 41 was renamed Granite Two in 1972. It remained basically the same with only very minor changes. 13

Before the Egyptians could launch the surprise attack across the Canal using either the High Minarets or Granite Two plans, many preparations were required to successfully conduct the crossing. The Egyptian Army had many problems — low morale, improper or

insufficient training, officer shortages, unworkable mobilization plans, and unemployable tactics and insufficient equipment for river, or canal, crossing operations.

Many lessons were learned in the 1967 defeat and the War of Attrition. Many of the problems and lessons learned in the 1967 War had been corrected and incorporated into army doctrine, and many from the War of Attrition would be corrected before the October War. 14

One of the problems in the Six-Day War had been the incompetent and highly political Egyptian senior military leadership. In 1967 and 1968 a purge of the military led to the removal of many of these incompetent commanders. During those two years there also was a major structural realignment within the high command. The goal of these changes, initiated by Nasser, was to create a unity of command and purpose with clear lines of authority and responsibility, which was missing during the Six-Day War. 15

Preceding the Six-Day War, rivalry, mistrust, and political intrigue between Commander-in-Chief Field Marshall Muhammad Abdul Hakim Amer, Chief of Staff General Muhammad Fawzi, and Minister of War Brigadier Shems al-Din Badran, led to an unworkable chain of

responsibilities. Felt throughout the military establishment, these problems caused widespread confusion and disunity. 14

These problems were compounded when Field Marshall Amer created a new command in May 1967, the Front Command, led by an Amer crony General Abd al-Mulsen Kamal Murtagui. A new headquarters was introduced between the Command for the Eastern Military District, commanded by Lt. General Salah al-Din Mohsen, and the General Headquarters (Amer). The Eastern Military District became the Field Army Command, in operational command and control of all assets in the event of war with Israel. Introduction of the Front Command (Murtagui) between the Chief of Staff and the Field Army Command was disastrous in the Six-Day War because the command created confusion in the chain of command, and strained relations developed between Murtagui and Mohsen. (See Appendix 2-7, chain of command during the 1967 War.) 17

After the Six-Day War, Nasser restructured the armed forces. Amer, Murtagui, Badran, and many senior air force commanders were dismissed. Many, including Badran, faced public trials. A new law was issued requiring presidential approval for all promotions to

11 killed and 92 wounded. Evidently the attack had a deterrent effect upon the Egyptians, for an elevenmonth period of relative calm existed along the Canal, with the exception of occasional artillery fires, air battles, and cross canal patrols. This period continued into the summer of 1968. 14

September 1968 saw the end of Nasser's first phase, "defensive rehabilitation." The Soviet Union had rearmed the Egyptian Army quantitatively to a level exceeding pre-1967 strengths. New, higher quality weapons had also been introduced into the army and air force. MIG-21s replaced MIG-17s, and T-54 and T-55 tanks replaced T-34s. Soviet involvement also increased in the number of military personnel coming to Egypt to train and help organize the armed forces. Initially numbering only a few hundred in 1968; they eventually would number in the thousands becoming involved in virtually all aspects of the Egyptian Armed Forces.

The structure of the Egyptian high command had been reorganized to improve unity of command and purpose (it was to undergo further changes which will be discussed in Chapter III). Incompetent senior officers had been removed, in some cases court-martialed, and replaced by competent,

professional commanders. 14

The calm of the first half of 1968 was interrupted by a concentrated barrage of over 1000 pieces of Egyptian artillery along the entire length of the Suez Canal on 8 September 1968. The second phase of Nasser's plan, "offensive defense," had begun. One purpose was to raise the morale of the army and the country and to erase the psychological effects of the defeat of the Six Day War. To accomplish this Nasser wanted to begin a limited offensive campaign against Israel to dispel the "superiority" of the Israeli forces. A second purpose was to bring to bear on the Israeli military in the Sinai the strategy of attrition. Nasser was well aware of the high value that Israel placed on human life. He hoped that concentrated attacks on the Israeli forces would bring pressure on the Israeli government to withdraw rather than sustain high casualties. The forthcoming offensive operations were to increase not only Israel's economic burden of retaining the occupied territories, but to increase Israeli casualties, undermining their morale. 17

During this second phase of Nasser's plan, through March 1969, fighting raged almost continually along the Canal, especially during the first few

months. Israeli casualties during the first bombardment on 8 September and the second one on 26 October numbered 25 killed and 51 wounded. ¹⁸ It appeared that the Egyptian strategy of attrition was working; Israel was taking heavy casualties. Israeli retaliation after the first bombardment was an artillery bombardment of the cities of Suez and Ismailia and the refineries in Suez.

The scope of the war began to spread as Egypt and Israel both conducted commando raids across the Canal, at times quite deep into enemy territory. On 31 October helicopter borne Israeli commandoes staged a successful raid against three targets along the Nile River between Cairo and Aswan, over 200 miles west of the Canal in retaliation for the 26 October Egyptian artillery bombardment along the Canal.

The Israeli-adopted policy of reprisal was meant to exploit Egyptian military, economic, and psychological sensitivities and was an extension of Israel's defense strategy. The Israeli strategy was "at its source reaction to and reprisal for Egyptian breaches of the cease-fire, accompanied by a policy of refraining from any initiative that might lead to escalation of military activity along the canal." 19

They initially believed that the ceasefire could be

reimposed by limiting military activity to artillery counterstrikes against Egyptian artillery, economic, and civilian installations along the Canal. "These counterbombardments were intended to show the Egyptians the cost of their military activity, not only from the military standpoint but also from the economic and civilian standpoint."

When Egypt increased the military activity along the Canal and commando raids on the east bank, the Israelis realized that merely returning the fire was no answer to Egypt's strategy. A new Israeli military action was needed to impose a ceasefire on the Egyptians. An appropriate response would be reprisal raids deep into Egypt against targets considered sensitive - military, economic, and psychological. This led to the previously mentioned 31 October raids on the Nile River targets at Najh Hamadi and Qena, which also demonstrated Egypt's vulnerability to Israeli attacks. The Israeli's also hoped that the raids would force Egypt to spread its forces and reduce the troop concentration along the west bank of the Canal. A period of comparative calm returned along the Canal. This lull in fighting began in early November 1968, and continued through the following March. 21

During the ceasefire the Israelis were faced

with a strategic dilemma: how best to defend themselves against the Egyptian strategy of attrition. There were basically two alternatives. The first option for the Israelis was to pull back from the Canal, out of the range of artillery, and maintain armored forces capable of counterattacking if, and when, the Egyptians attempted a crossing. This option was more characteristic of the mobile, rapid reacting armored and mechanized maneuvers that the Israeli forces had successfully used in previous campaigns and wars. This option, however, meant Egypt might be able to successfully cross the Canal and establish a bridgehead on the east bank before the IDF could repulse them. An Egyptian bridgehead established on the east bank could also present the Egyptians with a diplomatic opportunity to force Israeli concessions on the occupied territories. 22

The second option was to build a fortified line along the edge of the Canal. This option of static defense meant deviating from the standard Israeli strategy of mobile defense. It would also leave the IDF personnel stationed along the line vulnerable to the Egyptian strategy of attrition from artillery bombardments, unless sufficient protective facilities were built. It would also mean adopting the static

defense strategy, which favored Egypt with its superiority in artillery tubes and its willingness to accept human and equipment losses for the long-range goal of regaining the occupied territories. **3*

According to most sources, the Israeli military high command was divided on which option to select to counter the growing Egyptian belligerence. 24 Major General Avraham (Bren) Adan, Commander of Armored Forces, was chosen by Lieutenant General Chaim Bar-Lev, Chief of the General Staff, to head a military board to develop a concept for a defensive system in the Sinai. Adam's plan basically used the second option. He would situate approximately 17 small fortifications along the length of the Canal to give maximum coverage and observation. A small contingent of infantry would man each fortress while larger armored and artillery forces would be stationed behind the outposts, patrolling between the outposts and acting as reserves to be brought to the Canal to stop any attempted Egyptian crossing. 25

Major General Yeshayahu Gavich, Commander of the Southern Command, and Lt. Gen Bar-Lev approved of Adan's plan. Major General Ariel Sharon, Head of Training, IDF, and Major General Israel Tal, attached to the Ministry of Defense, disapproved of Adan's plan could be pumped into the Canal and ignited, creating an inferno on the Canal's surface. 27

The biggest problem confronting the Egyptians was getting across the Canal and over the sand barrier.

"The fundamental problem, clearly, was to drive passages through the sand barrier." 20 Compounding this problem was the requirement of doing it quickly. The Israelis held a brigade of armor in reserve within 60 kilometers of the Canal. If there were any indication of a major attack across the Canal, Israeli would activate their mobilization plan. Israeli mobilized units could be in battle positions within 48 hours of notification. If the Egyptians were to have any chance of destroying the Israeli fortifications, they would have to move a large number of units and equipment across the Canal very quickly. 20

The Egyptians built mockups of the sand barriers in the desert and experimented with many methods of breaching them. Dynamiting and bulldozing the barriers met with little success. To make one breach in the barrier took 60 men, one bulldozer, 500 pounds of explosives and five to six hours of uninterrupted work — approximately 1,200 manhours per passage. This approach was unacceptable because of the time required to clear the proposed 60 breaches along

forces. The outposts would be built solidly enough to withstand heavy artillery bombardments. This concept reduced casualties while thwarting, or at least delaying, a crossing and enabling implementation of the mobilization plan of the IDF. The second defensive line would consist of armored, artillery, and mechanized forces strategically stationed at positions to the rear of the main fortresses and strongpoints. They could move laterally along the main defensive line – giving them the ability to move immediately to oppose enemy crossings. 20

In early 1969 Lt. Gen. Bar-Lev accepted Adam's plan, in spite of the vehement arguments of Sharon, Tal, and their supporters. During the ceasefire in January and February 1969 the construction of the Bar-Lev Line, as it became known, was hastily completed. This complex network of fortresses, patrol roads, earth walls, mine fields, approach roads, underground control centers, and tank and artillery positions was upgraded at least three times during the next two years. Massive sand ramparts were constructed on the east edge of the Canal, transforming it into a "giant tank trap." The ramparts provided fields of fire along the canal while providing obstacles to infantry and armored units. 29

There were basically three components of this defensive concept. The first was a series of sioneand sand-reinforced bunkers "maozim," situated at intervals of 10-30 kilometers (17 in all along the length of the Canal), which were the main observation posts and the first line of defense (a trip wire for activating the mobilization of the IDF). Later another 20 strongholds (taozim) were built along a road, known as the Artillery Road, which paralleled the Canal 8-10 kilometers east of it. This road was to be used to move artillery along the line as the flow of battle dictated. Further east another road, the Lateral Road, running parallel to the Canal and about 30 kilometers from it was constructed to move the other two components of the defense concept, armored and artillery units, between sectors along the Canal. all approximately 500 million dollars was spent in constructing, upgrading, and repairing the defensive network. 30

By early 1969 Nasser was totally dissatisfied and disillusioned with the diplomatic attempts to bring concessions from Israel concerning the occupied territories. The construction of the Bar-Lev Line reinforced his opinion of Israeli intransigence in remaining in the Sinai. He saw the line not only as

Israel's attempt to insure the status quo of its presence and military superiority along the Canal and as a way to block Egypt's crossing, but also as Egypt's attempt to impose a fixed political boundary along the Canal. These considerations were primarily responsible for Nasser's decision to renew the fighting and the War of Attrition. 31

Yet Nasser was aware of several factors which would determine the level of war he pursued, a limited war rather than a general war against Israel. Egypt had not fully recovered in military strength and was still unable to obtain a position of equality with Israel's military strength, especially air power. Although Egypt had received large numbers of modern aircraft from the Soviets and many pilots had been trained, they were still incapable of neutralizing or counterbalancing the IAF in the air-to-air arena. Likewise, the ground forces did not have sufficient surface-to-air defenses to neutralize the Israeli close air support and interdiction capabilitities. needed an improved air defense system because the IAF had effectively neutralized the SAM-2s and SAM-3s during 1968. Egypt also needed increased training for their pilots to successfully offset these Israeli superiorities. 32

Israeli view into Egypt and helped conceal some of the preparations for the upcoming battle. 34

An enormous logistic and communications network was built behind the defense wall as well.

"Extensive communication networks were built, roads, railroads, docks; on these, both military and civilian vehicles, railroads, and water transport were used to move supplies and equipment to the front. A series of fuel depots especially secured against air attacks were constructed, most of them underground. Water tanks were set up from Port Said north, in all sectors of the front . . . Much of the material was moved to the front prior to October 6; special care was exercised to transport it gradually to avoid alerting the Israelis." 37

Preparations and refinements for Granite Two and High Minarets continued at an increasing pace with security precautions remaining strict for High Minarets. Very few people were aware of the second plan. According to General Shazly only fourteen people were ever aware of the entire High Minarets plan as it evolved. Those in the know were seven members of the Egyptian High Command, six in the Syrian High Command, plus one Egyptian officer who ran the special staff set up in January 1973 to coordinate Egyptian and Syrian planning. 30

As military preparations continued in 1972 and 1973 for the "inevitable war" with Israel President Sadat pursued diplomatic initiatives for a settlement. As stated earlier Sadat's attempts at a diplomatic

burdens on the economy, and destroy as much of the Bar-Lev Line and Israeli war equipment as possible.

This attritive war would, likewise, keep the political issue alive in the United Nations, intensifying pressure on Israel for returning the occupied lands. Nasser also hoped the prolonged war would increase the offensive spirit of the Egyptian forces and raise morale of the Egyptian public through a successful campaign against the Israelis. Finally, he hoped the war would elevate Egyptian status and leadership in the Arab world and establish a unified front against the Israelis which would ultimately lead to a general war and Israel's destruction. 35

In accomplishing the limited aims of the "liberation phase", the Egyptians possessed superiority over the Israelis in the one weapon required for this type of war - artillery. The Egyptian's primary tactic was continued bombardments supplemented by commando raids on targets on the east bank of the Suez. This static war would negate the IDF's advantage of maneuverability and speed. It would allow the Egyptians to wipe out a significant portion of the forward positions of the Bar-Lev Line as well as the mobile forces near the Canal, while allowing them to seize a number of bridgeheads on the east bank. 36

In mid-March 1969 the ceasefire ended with concentrated Egyptian artillery barrages against the Israeli defensive positions along the Canal. The "liberation phase" of the War of Attrition had now begun. It would continue without respite for the next sixteen months until the joint acceptance of the Roger's Plan in August 1970. During this seventeenmonth period, numerous raids, air battles, artillery duels, and other conventional and unconventional battles occurred.

Israel's basic aims during this phase were fundamentally what they had been since June 1967 — to maintain the territorial, political, and military status quo created after the Six-Day War. To maintain this condition, they formulated five intermediate aims: (1) prevent Egypt from crossing the Suez and establishing footholds on the east bank; (2) remain firmly in control of the existing line to show that Israel had the determination and capability to do so; (3) prevent total war which would upset the status quo brought about by political pressures for change before Israel realized its political-strategical aims of a positive peace treaty; (4) refrain from violating the ceasefire, which could lead to escalation and general war; and (5) refrain from escalating and extending the

war to a total war in the event Egypt initiated incidents along the Canal. 37

Throughout March, April, and early May, the Egyptians continued the heavy artillery barrages against the Bar-Lev Line and Israeli forces all along the eastern bank. In April Egyptian commando raids against the Bar-Lev Line, Israeli patrols, and logistic routes and areas escalated the intensity of the conflict. The Bar-Lev Line held, but was battered. The Israelis suffered heavy casualties, but did not lessen their resolve to maintain the status quo. In mid-April Israeli commandos struck again along the Nile cutting high-tension powerlines between Aswan and Cairo and attacking a bridge near Idfu. Israeli counter-artillery fire and commando raids inflicted heavy casualties and losses on the Egyptians. However, these losses and casualties did not seem to lessen Egyptian resolve to impose their will on Israel. 30

The Israeli defensive measures during the March to June period were primarily retaliatory. Israeli counter—artillery fires answered the initial Egyptian artillery barrages. When Egypt began using commando raids on the eastern side of the Canal, the Israelis retaliated with commando raids deep into Egypt — a tactic that had worked in 1968 to bring about a

ceasefire. During this time frame in 1969, Israel, as well as Egypt, had refrained from using their air forces in any significant role in the conflict.

In The War of Attrition, Bar-Siman-Tov discusses the air forces' "non-role" up to the middle of 1969. He states that both nations abstained from using air power because of the escalation their use would produce in the limited war: Egypt's Air Force was not ready to confront the IAF, because they did not have enough qualified, proficient pilots capable of defeating IAF pilots in head-to-head combat. Likewise, the air defense network was not well established. Israelis felt that introducing the air force would be counterproductive against Egyptian targets (infantry, guns, and mortar emplacements), and could also intensify the war. Israel did not want to raise the profile or intensity of the war for politico-military reasons described earlier. Other political reasons included the uncertainty of United States and Soviet reaction to the escalatory nature of introducing the air force and the possibility of a general war. Maintaining the war's static nature while also maintaining sufficient intensity to reimpose the ceasefire on the Egyptians was in Israel's vital interest. 39

Meanwhile, Israeli casualties continued to In May and June 1969 Israel suffered 76 casualties (22 killed and 54 wounded), over one-half caused by artillery. On 10 July another incident occurred which influenced Israeli strategy in the coming months. An Egyptian commando raid successfuly attacked on Israeli armored unit south of Port Tewfik in daylight, inflicting eleven casualties on the Israeli force. The escalatory nature of the war. public and political sensitivities towards the intolerable increase in casualties, and Israel's reevaluation of Egyptian aims, led to formulation of new Israeli aims and strategy in mid-July; introduction of the air force into the war; and a switch from a defensive to a limited, offensive strategy. 40

Dissent in the armed forces once again accompanied the decision to employ the air force.

Among those opposing the use of the air force were Minister of Defense, Moshe Dayan; Chief of Staff Chaim Bar-Lev; and senior air force staff headed by Commander Mordekhai Hod. Dayan opposed using the air force due to the implied escalatory significance. It should only be used if a serious Egyptian threat occurred (i.e., an attempted crossing in force).

Others did not wish to use air force due to the extensive Egyptian missiles along the canal. Unless the IAF obtained new electronic countermeasure (ECM) equipment to counter the threat, they were not in favor of using the air force to bomb Egyptian infantry or gun emplacements. *1

In spite of these misgivings, on 19 July 1969 the IDF and the Israeli government decided to use the IAF. The Israelis believed that the increased activity along the Canal was a prelude to a near-term crossing. The limited use of the IAF was designed to prevent this crossing by showing the Egyptians that Israel still maintained superiority in the air, and that no crossing attempt could succeed. Other Israeli aims were to prevent Egypt from increasing the level of war to a general war and force her to decrease the number of military along the Canal. Israel believed this would decrease casualities. General Bar-Lev later characterized this strategy by saying:

". . . putting planes into action currently on the canal is 'escalation for the sake of de-escalation,' an increase of activity for the purpose of securing a reduction of activity."

On 20 July the IAF initiated air attacks
against the Egyptian forces on the west bank which
lasted through 28 July. They hoped the Egyptians would
be forced to give up the idea of a crossing. Targets

were mainly north of Qantara and within a few miles of the Canal. The air attacks were directed at artillery emplacements, SAM-2 sites, commando bases, radar stations, and strongpoints of the Egyptian armed forces. The limited nature of these targets was again due to the Israeli desire to decrease the apparent escalatory nature of employing the IAF.

There is some indication that the employment of the IAF did force Nasser to postpone the crossing of the Canal. He did not intend to cancel the crossing, only postpone it and continue the war of attrition.

Ground activity continued unabated through July and August by both belligerents. On 19 July the Israelis launched a nightime commando raid on Green Island in the northern part of the Gulf of Suez. A key radar site for the Egyptian anti-aircraft network has housed on this island. The Israelis destroyed the radar equipment and gun emplacements. The Israelis conducted nine more commando raids into Egypt through 27 December 1969. Two of these raids were significant to Israeli aims, because they demonstrated the vulnerability of Egypt. The Israelis hoped the results of these successful raids and the air force's entrance into the war would lead Egypt to renew the ceasefire and end their belligerency.

On 9 September a force of several hundred Israelis, equipped with Soviet tanks and personnel carriers captured in the Six-Day War, was transported by amphibious vessels to the west bank of the Gulf of Suez, north of El-Khafir. They proceeded south along a coastal road destroying a radar site at Ras Abu-Daraj, the main objective. IAF aircraft assisted them in this operation. They proceeded south, virtually unopposed by Egyptian forces, and destroyed a second radar site at Ras Za'afrana. The Israeli force then reembarked on amphibious craft and returned to the Sinai. 46

Later in December helicopters transported

Israeli forces to an Egyptian radar station at Ras

Gharib which was equipped with a new, low-level target
acquisition radar, known as the P-12 radar. This was
one of the Soviet's most modern radars with
characteristics unknown to western military and
intelligence agencies at that time. A team of Israeli
engineers removed two partially buried trailers
containing the radar system, and used two heavy-lift
helicopters to transport them to Israel. The
technology and information obtained from the Israeli
study was incorporated into tactics and ECM equipment
used to defeat the Egyptian's system. The radar was
later sent to the United States for study. 47

The second phase of the air force's involvement began on 13 August and continued through 19 August 1969. The first phase ended on 28 July when Israel assumed Egypt had put off the crossing. Between 28 July and 13 August there were mainly small arms, mortar, and artillery fires. When Egyptian artillery fire began to increase during the second week of August, Israel reacted with air strikes against Egyptian artillery positions. The Israeli aim during this phase was to bring moderation to the Egyptian activity. Counter-bombing artillery positions failed to deter Egypt's fires across the Canal.

This led to a third period of Israeli air attacks against Egyptian positions along the Canal. The period continued from 9 September until the end of December 1969. During this time the Israelis waged their own air war of attrition against the Egyptians. Strikes were still limited to targets along the length of the Canal. Israel's aim was still destruction of Egyptian artillery positions and air defense systems along the Canal and the Gulf of Suez, and continuation of Israeli air superiority throughout the region. By the end of December Egyptian defenses along the Canal were basically ineffective against the IAF. 49

As stated earlier, one of the prerequisites for

an Egyptian crossing of the Canal was neutralization of the Israeli air superiority. But the continued ineffectiveness of the Egyptian Air Force and then the destruction of a large portion of their air defense system dictated modifying this strategy. Likewise, another prerequisite was at least a two-front attack against Israel. Nasser's attempts at Arab unity during 1968 and 1969 had proved fruitless — the Arabs were still unable to arriv at a concensus for dealing with Israel, as well as Nasser's acceptance in the Arab world as its leader.

At the end of 1969 Egypt's desire to launch an attack across the Canal was further delayed due to the status of the air defense systems and Arab disunity. However, Nasser had no intention of discontinuing the planned assault. He would merely delay it. Although the initiative had gone over to the Israelis by year's end, Nasser's determination to continue was not dampened and Israel's limited action proved insufficient to impose a ceasefire. The Israeli air war did not bring an end to the hostilities, but did moderate it. Appendix 2-5 charts the activity from March to December 1969 and the relationships between Israeli casualties; the number of Egyptian artillery, mortar, and small arms fires across the Canal; and

Israeli air attacks.

Early 1970 saw major changes in both belligerents attitudes and strategies. The Israelis, sensing a chance to exploit their successfully damaging the Egyptian air defense systems, escalated the air war to include military targets in the Egyptian interior. This was viewed as a major increase in escalation. Israel still had doubts about American and Soviet responses to their campaign of in-depth raids. Israel felt the USSR would not intervene militarily to keep Nasser from losing control of the government or risk a confrontation with the US should the Soviet Union take direct military action against her. The Israelis believed that Soviet intervention would be very limited in a worst case scenario.

Israeli concerns with the American response were likewise considered. Lack of US response to earlier raids caused Israel to believe that the US would not condemn the raids. Likewise, Israel felt that the US opposed Nasser's government and would be sympathetic to any action which would hasten his removal from office. Futhermore, Israel believed the US was primarily concerned with its own interests in the Middle East. The prestige Nasser had gained in the Arab world since the Six-Day War and his anti-American

Israel had received F-4 Phantom fighter-bombers in 1969. If the US hadn't approved of the Israeli strategy, would she have supplied these modern aircraft to Israel? Israel's final concensus was, while the Americans did not actually encourage the Israeli policy, they did not explicity oppose it. ***

Israeli air raids began on 7 January 1970 and continued until 13 April. *** The first raid was directed at Egyptian Army and Air Force bases near Inchas and Hilwan. Other targets near Cairo were periodically bombed throughout the rest of January and February. There were civilian casualties from the raids at Abu Zahaal and Bakr el-Bakhar. *** During March and April the raids focused on SAM-2 missile sites and radar stations in the Nile Delta. These raids exposed the Egyptian's inability to defend against the IAF. The Egyptian people's dissatisfaction with the military's ineptness threatened to bring down Nasser's government. Nasser needed to do something quickly to diffuse the situation. ***

In early December 1969 the ineffectiveness of the SAM-2 missiles against the IAF and the growing civilian unrest prompted Nasser to send a delegation to Moscow to secure solid Soviet assistance. On 9 December Anwar Sadat, head of the Egyptian National Assembly, Foreign Minister Mahmoud Riad, and Minister of Defense General Mohammed Fawzi left Cairo with a mission of obtaining more sophisticated arms from the Soviets. They did not succeed in gaining anything other than a Soviet understanding of Egypt's military needs. The Soviets were not convinced that more sophisticated weaponry would help.

The resumption of the Israeli air raids into the heart of Egypt in January 1970 substantially increased the need for Soviet support. On 22 January a very ill Nasser, along with General Fawzi and Information Minister Mohamed Heikal, made a secret trip to Moscow, again seeking more arms. Nasser's aim was to get the Soviets directly involved. He threatened to step down as President of Egypt and hand the country over to a pro-American president if they did not provide the support he required. Nasser requested SAM-3s, a low-to-medium altitude surface-to-air missile, and MIG fighters to combat the Israeli F-4 Phantoms and A-4 Skyhawks. However, Egypt had no missile crews trained to operate the new system, so he requested Soviet crews to man them until the Egyptians crews were trained. This would directly involve Soviet military personnel in the war with Israel - a major

escalatory move. Soviet Premier Leonid Brezhnev summoned the Politburo to decide on this critical issue. They decided to send SAM-3s plus Soviet crews to Egypt and install the new missile system. Eighty Soviet aircraft, including four MIG-25s, would also be sent. Approximately 1800 Egyptians would be sent to Russia for six-months training on the new missile. greatly increased Soviet presence and role in the Israeli-Egyptian conflict was forthcoming. The Soviet decision was based in large part because of their desire to retain the Nasser government in power. government friendly to the USSR in the region was critical for them in reducing US presence in the Middle East. Restoring the strategic balance in the Canal region would allow them to pursue diplomatic efforts. 54

Soviet equipment and personnel began arriving shortly after the Nasser-Brezhnev conference. In late February the first of the SAM-3 missiles and crews were in place. Israeli air attacks continued against the SAM-2 sites and at the SAM-3 construction sites. Artillery bombardments and Egyptian raids across the Canal continued. In February an Egyptian reconnaissance unit penetrated the Milta Pass in west-central Sinai. Egyptian air raids and air battles

intensified in February and March. Personnel and equipment losses on both sides of the Canal mounted. ³⁷

With the growing "Sovietization" of the war,

Israel faced a dilemna. Should it continue the bombing
of the missile sites, more frequently manned by Soviet
crews, and chance a direct confrontation with the
Soviet Union, or should it stop or limit the attacks
all together? Minister of Defense Dayan initially
favored limiting the in-depth attacks to avoid clashes
with the Soviets. Vice Premier Yigal Allon and many of
the other Ministers did not share Dayan's view. They
viewed the Soviet intervention as limited in nature and
not likely to expand. However, the government did not
accept Dayan's proposal. Israel did begin to limit its
raids to missile sites and radar stations in the
northeast area of the Nile Delta.

In early April Israel's dilemna was further compounded. MIG-21s, piloted by Soviets, began defending the missile sites and other strategic sites in the interior of Egypt. When Dayan was informed of this, he proposed stopping the in-depth raids entirely to avoid confronting the Soviet Union. On 13 April the Israelis halted the in-depth raids, while continuing and intensifying the attacks along the Canal Zone. By discontinuing the in-depth attacks Dayan hoped that a

"gentleman's agreement" could be reached with the USSR. whereby Israel would cease its bombing if the Soviets would respect Israel's strategic air superiority in the area and would refrain from attacking in the Canal Zone. The Soviet answer came five days later when an air battle occurred between Soviet-pilots MIGs and Israeli aircraft. Israel answered the confrontation with an announcement of Israel's new policy: Israel would continue the ceasefire of no in-depth raids. Israel would not, however, be deterred from a direct confrontation with the Soviet Union if they attempted to intervene in the fighting in the Canal area or violate the ceasefire line set down after the Six-Day War. These limitations which, if violated, could lead to a military confrontation between Israel and the USSR were:

". . . (1) no operational activity by Soviet airplanes and pilots in the air space over the front (30 to 40 kilometers from the canal line), and (2) no installation of antiaircraft systems of any kind - mainly SA-3 missiles - on the western bank of the Canal."

When the in-depth air raids ended, the Egyptians and Soviets began rebuilding and strengthening the air defense network in the Egyptian interior. They proceeded to systematically advance the network towards the Canal. By the end of June the Egyptians and Soviets had established a SAM-2, SAM-3,

and antiaircraft network up to the edge of the battlezone, halfway between Ismailia and Suez, 30 kilometers from the Canal. The Soviets had transferred their activity from the rear areas to the Canal Zone. On 30 June Israel attacked these sites, beginning a direct confrontation with the Soviets. The Israelis directed their heaviest efforts at these sites, resulting in increased losses of Israeli aircraft and pilots. Between 30 June and 7 July Israel lost three Phantoms while destroying or damaging five of the twelve SAM-2 sites. Towards the end of July Russian-piloted MIGs intercepted and hit one of the attacking Israeli aircraft. Israel's resolve remained firm and the attacks against the missile sites continued. On 30 July Soviet pilots again engaged Israeli aircraft over the northern sector of the Gulf of Suez. In the ensuing dogfight, five Soviet-piloted MIG-21s were shot down with no Israeli losses. 40

A few days later on 7 August 1970, Israel and Egypt accepted an American proposal for a ceasefire negotiated through the United Nations Emissary Gunnar Jarring. It was not an easy decision for Israel. The details surrounding this decision will be discussed further in Chapter IV.

After more than three years of conflict the War

of Attrition ended without a clear-cut military decision or victor. Both Israel and Egypt had suffered heavy casualties. The military-balance between the two had changed significantly since the Six-Day War. Egypt had considerably improved its strategic position through Soviet intervention. From a military standpoint Egypt had failed because they had not succeeded in forcing Israel from the Sinai or the Suez Canal. But the military failure was responsible for the political success, because it involved Soviet intervention which prevented Israel from affirming its strategic superiority. Israel's military strategic standing had declined signficantly from the clear superiority it had during the Six-Day War. The political balance was altered even though the territorial status quo remained unchanged. Israel's acceptance of the ceasefire and the superpowers entrance into the process had reduced her political clout and could lead to future military and political pressures by the US and USSR to secure Israeli withdrawal from part or all of the occupied territories. 41

CHAPTER II

ENDNOTES

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CHAPTER III

EGYPTIAN PREPARATIONS FOR LIBERATION OF THE SINAI August 1970 - October 1973

On 28 September 1970, less than two months after the ceasefire, President Gamel Abdel Nasser, died of a heart attack. He was succeeded by Vice-President Anwar el-Sadat. After a few months Sadat began making changes in the Egyptian government; he consolidated control of the government and the armed forces.

One change was the appointment in November 1970 of Dr. Mahmoud Fawzi, not former Vice-President Ali Sabri, as Premier of Egypt. Sabri had been, and would continue to be for the next few months, the opposition leader against Sadat. After Fawzi's appointment, Sabri led a conspiracy against Sadat which was promptly discovered. The conspirators were dismissed from their government positions, jailed, tried, and given long jail terms. Another casualty of the conspiracy, although not implicated directly, was General Mohammed Fawzi, Minister of War. He was replaced by General Mohammed Sadeq, the Chief of Staff. General Ahmed Ismail Ali, called from retirement, was appointed Chief of National Intelligence. With his power base consolidated. Sadat set out on a cautious, diplomatic approach to the problems facing Egypt, primarily the

problem of Israel. 4

When he assumed the office, President Sadat decided not to follow Nasser's War of Attrition. He believed it had served its purpose but was no longer a viable means of getting concessions from the Israeli government. Attritive operations against them would only result in violent Israeli actions. He believed it would be better to train, arm, and prepare the military for a successful campaign against the Israelis in the Sinai. 2

President Sadat hoped he would not have to fight, for he hoped that Israeli withdrawal from the occupied territories could be accomplished through diplomatic means. He hoped that the United Nations and the United states could arrive at a solution for return of Arab territories and the Palestinian problem. His main goal, as was Nasser's, was:

"The regaining of lost Egyptian territories of the formula that not one inch of Arab territory will be lost, and there will be no bargaining over the rights of the Palestinian people." 3

By mid-1970, however, Sadat was becoming disillusioned with United States' attempts to secure concessions from Israel. He stated, "but all he [Secretary of State Rogers] did was to extract more and more concessions from us and not a single one from the Israelis." 4 His search for political solutions was

ending and a military solution was possibly the only means remaining. He stated that:

"This is what we want and insist on because we believe the battle is going to be imposed on us, and that the decisive word will be spoken on the battlefield. We tried, and are still trying politically. We shall not close the door or miss a chance. Even if there is a one per cent chance for a peaceful solution, we shall work for it. But in the end we shall fight to liberate our land, for this is our duty and a legitimate thing to do." "

He had been preparing for the eventuality of In December 1970 he concluded a military assistance agreement with the Soviet Union. The following spring, 27 May 1971, he signed a fifteen-year Treaty of Friendship and Cooperation with the Soviets. In the summer of 1971 Sadat ordered Lt. General Saad el Shazly to prepare a plan for a limited operation against the Israelis. Lt. General Shazly, appointed Chief of Staff of the Egyptian Armed Forces in May 1971, was known as an aggressive leader and one of Egypts most successful and popular commanders. Shazly had been the commander of the first paratroop battalion in the Egyptian Army, the United Arab Forces in the Congo in 1960-1961, and Commander of the Special Forces between 1967 and 1969. • Shazly proposed a "limited attack" because that was:

"All that our capabilities would permit . .

. We could aim to cross the canal, destroy the
Bar-Lev Line and then take up a defensive posture.
Any further, more aggressive moves would then need
different equipment, different training, and a lot

more preparation." 7

This plan was initially rejected by General Mohammed Ahmed Sadek, War Minister and Commander—in—Chief, Egyptian Armed Forces. He felt it was of no value either politically or militarily. Sadek believed the required weaponry to accomplish this limited plan was neither currently available in the Egyptian Army nor likely to be available from their reluctant supplier — the Soviet Union. He did not believe that the plan went far enough; he believed that given "sufficient weapons" — the key to his beliefs — the Egyptian Army should continue all the way to the international frontiers of Egypt and into the Gaza Strip.

Tip.

However, to Sadat and Shazly:

"The objective was not so much to produce an outright victory or even military gains, as such, but to end the state of 'no war, no peace' and to compel the United Nations intervention."

General Sadek finally accepted a compromise plan, Operation 41. This offensive plan was limited, "to the seizing of the key Sinai passes 30 - 40 miles east of the canal." 10 The plan required less equipment and would less likely be rejected by the Soviets from which equipment was required for the plan to be implemented. The plan was ready by September 1971. In October President Sadat and General Sadek

flew to Moscow with the weapon's "shopping list." They concluded the biggest Soviet arms deal to date.

Included in the deal were 100 MIG-21s, several MIG-17, MIG-15, and SU-7 aircraft, MI-8 helicopters, a brigade of mobile SAM-6 missiles, and ZSU-23mm antiaircraft guns. The Egyptians believed that these arms were still insufficient to repel Israeli air strikes if they were going to cross the Suez Canal. 11

Behind the scenes and in secrecy of the Soviets and all but a few of the senior Egyptian staff members, the Egyptians were developing an even more limited offensive plan, "The High Minarets" plan. This plan:

". . . was based more closely on the actual capability of our armed forces, as opposed to some notional capability after untold arms shipments. Its objectives were the limited goal I [General Shazly] had set of a five or six-mile penetration."

The preparation and planning of Operation 41 and High Minarets continued through the rest of 1971 and into 1972. Operation 41 was remained Granite Two in 1972. It remained basically the same with only very minor changes. 13

Before the Egyptians could launch the surpise attack across the Canal using either the High Minarets or Granite Two plans, many preparations were required to successfully conduct the crossing. The Egyptian Army had many problems — low morale, improper or

insufficient training, officer shortages, unworkable mobilization plans, and unemployable tactics and insufficient equipment for river, or canal, crossing operations.

Many lessons were learned in the 1967 defeat and the War of Attrition. Many of the problems and lessons learned in the 1967 war had been corrected and incorporated into army doctrine, and many from the War of Attrition would be corrected before the October War. 14

One of the problems in the Six-Day War had been the incompetent and highly political Egyptian senior military leadership. In 1967 and 1968 a purge of the military led to the removal of many of these incompetent commanders. During those two years there also was a major structural realignment within the high command. The goal of these changes, initiated by Nasser, was to create a unity of command and purpose with clear lines of authority and responsibility, which was missing during the Six-Day War. 15

Preceeding the Six-Day War, rivalry, mistrust, and political intrigue between Commander-in-Chief Field Marshall Muhammad Abdul Hakim Amer, Chief of Staff General Muhammad Fawzi, and Minister of War Brigadier Shems al-Din Badran, led to an unworkable chain of

command which produced conflicts and overlapping responsibilities. Felt throughout the military establishment, these problems caused widespread confusion and disunity. 14

These problems were compounded when Field Marshall Amer created a new command in May 1967, the Front Command, led by an Amer crony General Abd al-Mulsen Kamal Murtagui. A new headquarters was introduced between the Command for the Eastern Military District, commanded by Lt. General Salah al-Din Mohsen, and the General Headquarters (Amer). The Eastern Military Districh became the Field Army Command, in operational command and control of all assets in the event of war with Israel. Introduction of the Front Command (Murtaqui) between the Chief of Staff and the Field Army Command was disastrous in the Six-Day War because the command created confusion in the chair of command, and strained relations developed between Murtagui and Mohsen. (See Appendix 2-7, chain of command during the 1967 War.) 17

After the Six-Day War, Nasser restructured the armed forces. Amer, Murtagui, Badran, and many senior air force commanders were dismissed. Many, including Badran, faced public trials. A new law was issued requiring presidential approval for all promotions to

colonel and above. General Fawzi, replaced by General Sadek in 1971, was appointed Commander in Chief. In 1968 Nasser combined the positions of Commander in Chief and War Minister into the Minister of War post to centralize authority. Directly under the Minister of War was the Chief of Staff of the Armed forces. The Chief of Staff had direct command and control over all the services. The Ground Forces Command was abolished. The new chain of command was uncomplicated and brought about a needed unity of command that had been missing during the 1967 War. To further simplify it, the only four-star rank was the Minister of War. The Chief of Staff was a three-star position and the service commanders were two-stars. (See Appendix 2-8, chain of command prior to the 1973 War which followed this structure.) 18

In his book, <u>The Crossing of the Suez</u>, General Shazly describes procedures used to correct the training deficiencies in the Egyptian Armed Forces.

Increased command interest in field training resulted in commanders going to the field to oversee training and becoming acquainted with the troops. "Directives," or "How-to-Books," were written by Shazly and distributed to the troops. Exercises lasting three to six days which posed operational problems likely to be

"Liberation" exercises were held between the 1967 War and the October War. Shazly was in charge of 18 of these exercises. He felt these exercises were very important in preparing the troops for the October War. 19

Officer shortages were filled from the college graduate resources available, a policy President Nasser implemented much earlier. Military academies were able to produce 3,000 officers a year. A shortage of 30,000 officers existed within active duty units and new units being formed. A new junior rank was created to help eliminate this shortage of officers. The new rank, called "War Officer" would provide officers who were:

". . . qualified in a single specialization, with barest knowledge of the other skills of soldiering . . . training could be cut to four or five months . . . able, just, to command some specific platoon — a job he would hold throughout the war."

Egyptian armed forces numbered approximately 800,000 men on active duty in early 1971; by the start of the October War there were approximately 1,050,000. Only 42% of these troops were field units; most of the remaining troops were local security forces. One hundred fifty-thousand of these men were mobilized during late September 1973, just preceeding the war. 21

In 1972, General Shazly implemented a

mobilization plan, based on Sweden's plan. In the Swedish system all heavy weapons were stockpiled in strategic points where the deployed troops would report when mobilized. Personnel manning the equipment usually resided in the general area or in close proximity to it. If an individual moved from the region, he was replaced by someone else in the local area.

There were several advantages to this system that the Egyptian leadership believed would make it adaptable to Egypt's use. It cut mobilization time to a minimum; personnel lived and trained in the unit and became familiar with each other; annual training was easily accomplished; and there was the added incentive of defending one's country by defending one's home.

Mobilization points in Sweden were spread throughout the country in preparation for a threat from any direction. Egypt's threat was Israel; therefore, the mobilization concentrations needed only face the Israeli border. Geographically based reserve units went directly to deployment points, where stockpiled weapons were stored. These units were to be ready for action within 48 hours. This mobilization plan was exercised 22 times between January and 1 October 1973, for periods of a few days to two weeks. This

mobilization caused concern on many occasions to the Israelis, which will be discussed in Chapter IV. 22

On 26 October 1972, President Sadat relieved

General Sadek. Circumstances prompted his dismissal,
an important one being that he and Sadat had long
failed to see eye-to-eye on many military matters.

General Sadek still maintained the opinion that Sadat's
plan for crossing the Canal was too limited. He
believed that this limited goal would not pay off with
the dividends Sadat hoped for. To accomplish Sadek's
extensive goals for a crossing, he demanded far more
equipment than Sadat felt the armed forces could
consolidate or that the Soviets would furnish. Sadat
also felt that Sadek was too extreme and vocal in his
anti-Soviet attitude and that he was becoming too
involved in politics. 23

General Ahmed Ismail Ali was appointed as the new Minister of War and Commander—in—Chief of the Egyptian Armed Forces. Sadat felt that Ismail was a very competent military commander. Where Sadek had very little combat experience, Ismail had fought in World War II as an intelligence officer and in the three wars with Israel in 1948, 1956, and 1967. He was known in Egypt as one of its most brilliant military strategists. He was professional, honest, and wholly

above politics. He had a good background of professional schools in Egypt; he had studied tactical warfare in England; and he was one of the first high ranking Egyptian officers to receive Soviet military training. He was appointed operations chief in 1968, became Chief of Staff when General Abdul Moneim Riyad was killed in 1969. Nasser retired him after the Israelis landed unopposed on 9 September 1969 on the west bank of the Gulf of Suez, south of El-Khafir. Sadat returned him to duty as intelligence chief in May 1971, replacing one of the Sabri conspirators. In addition to his military experience, he was a strong supporter and friend of Sadat, a technocrat, as well as a strong advocate of the cautious, Soviet mini/max style of fighting. 24

The dismissal of General Sadek was a very unpopular move with the military, and General Shazly in particular. In The Road to Ramadan, Heikal states that Shazly's disapproval may not have been so much in defense of Sadek, as his animosity towards Ismail. His dislike for Ismail developed twelve years earlier when he was commander of the Arab Forces under United Nations auspices in the Congo. Ismail was sent by Nasser to inspect Shazly's force, and this was resented by Shazly. Continued friction between Ismail and

Shazly appeared throughout the year of preparation for the war. However, their differences were generally put aside to accomplish their common goal — seizure of the east bank of the Canal. 20

The largest obstacle to overcome for the military crossing was the Suez Canal. The Canal is 107 miles long and it is 590 feet wide. There is a 6.5 foot shoulder of rock and concrete on each edge of the canal. Because of the steepness of this shoulder, it would require knocking off before an amphibious tank could cross or a floating bridge be erected. The Israelis had also erected a sand barrier on the east side that was as much as 60 feet above the water. The current, always strong, peaks every six hours. Tidal variations were as much as six feet between high and low tides, depending on the phase of the moon. 24

Immediately on the east side, adjacent to and extending the length of the Canal, was the Bar-Lev Line with its 17 primary fortresses. Subsequent defensive lines were located behind these fortresses which provided an in-depth defense 30-35 kilometers from the Canal. The Israelis had also installed storage tanks with inflammable liquids at probable crossing points along the canal. Pipes extended from the storage tanks to the Canal. In an Egyptian crossing, this liquid

could be pumped into the Canal and ignited, creating an inferno on the Canal's surface. 27

The biggest problem confronting the Egyptians was getting across the Canal and over the sand barrier.

"The fundamental problem, clearly, was to drive passages through the sand barrier." 20 Compounding this problem was the requirement of doing it quickly. The Israelis held a brigade of armor in reserve within 60 kilometers of the Canal. If there were any indication of a major attack across the Canal, Israeli would activate their mobilization plan. Israeli mobilized units could be in battle positions within 48 hours of notification. If the Egyptians were to have any chance of destroying the Israeli forti- fications, they would have to move a large number of units and equipment across the Canal very quickly. 20

The Egyptians built mockups of the sand barriers in the desert and experimented with many methods of breaching them. Dynamiting and bulldozing the barriers met with little success. To make one breach in the barrier took 60 men, one bulldozer, 500 pounds of explosives and five to six hours of uninterrupted work - approximately 1,200 manhours per passage. This approach was unacceptable because of the time required to clear the proposed 60 breaches along

the Canal and because the personnel would be lucrative targets for the Israeli artillery and air strikes. 30

A young engineer discovered that high pressure water pumps effectively gouged holes in the sand barriers within three hours. Later, they found improved pumps in Germany that reduced the time to two hours. To disguise the purchase of the numbers of pumps required, the buyers explained that the pumps were being used to modernize fire brigades in Cairo. Teams of engineers exercised experimenting with different numbers of pumps needed to reduce the time to breach the sand barriers. 31

Mobilizations of the reserves continued with several maneuvers up to the Canal. Training was detailed to the smallest specifics of battle. The Egyptian military staff made concise and accurate assessments of Israel's strength and weaknesses.

General Ismail's conclusions were:

". . . Israel possessed four basic advantages: its air superiority, its technological skill; its minute and efficient training; and its reliance upon quick aid from the United States . . This enemy also had his basic disadvantages. His lines of communication were long and extended to several fronts, which made them difficult to defend. His manpower resources do not permit heavy losses of life. His economic resources prevent him from accepting a long war. He is, moreover, an enemy who suffers the evils of wanton conceit." 32

To counter and exploit the Israeli

disadvantages, the strategy that evolved would: attack along the whole length of the Canal, allow simultaneous attacks on two fronts — Syria in the north and Egypt in the south, and retain as much armor and aircraft in reserve as possible for the the expected Israeli counterattack. Attacking along the length of the Canal and opening a two—front war would disperse Israel's ground and air counterattacks. Ismail believed that the Israelis would also be unsure where the main effort was being directed in the early stages, thereby delaying and reducing the concentration of the Israeli counterattacks. 33

Egyptian planning called for cunning and thorough training. The Director of Operations under Shazly was General Abdul Ghani el-Gamasy. He was primarily responsible for the detailed planning and coordination for the crossing. He was the most intellectual of the three primary military leaders. He was a graduate of the Military Academy, like Ismail and Shazly, and had also studied in the Soviet Union and the United States. He was primarily an operations planner and trainer. He had served with Montgomery in the Western Desert in World War II, and had command experience. He was the Deputy Director of Intelligence in 1968 and the Director of Operations and Director of

Training in 1970. He was in many cases a moderating force between Shazly and Ismail. 34

General Shazly handled morale problems, general training, leadership, and the sand barriers. The Israeli actions of preemptive air strikes could be countered by the improved SAM belt established up to the edge of the Canal. The SAM belt gave good coverage for advancing forces all along the Canal and covered air space out to 16 kilometers over the east bank of the Suez. After that, the Egyptians would have to halt and entrench while the air defense system reorganized and moved forward. To move ground forces beyond the SAM coverage would be disastrous, as the Egyptians had learned in 1967 and during the War of Attrition.

Marshalling of troops to the canal, at the Canal, and across the Canal had been planned and executed in maneuvers.

New defensive positions on the west bank of the Canal were built. The Egyptians constructed their own sand barriers across from the Israelis. These served a double purpose. First, the additional height of their barriers gave the Egyptians a view over the Bar-Lev Line into the Sinai. Secondly, they prepared artillery and tank emplacements on top for firing into the Israeli positions. The new embankment also blocked the

Israeli view into Egypt and helped conceal some of the preparations for the upcoming battle. 34

An enormous logistic and communications network was built behind the defense wall as well.

"Extensive communication networks were built, roads, railroads, docks; on these, both military and civilian vehicles, railroads, and water transport were used to move supplies and equipment to the front. A series of fuel depots especially secured against air attacks were constructed, most of them underground. Water tanks were set up from Port Said north, in all sectors of the front . . . Much of the material was moved to the front prior to October 6; special care was exercised to transport it gradually to avoid alerting the Israelis." 37

Preparations and refinements for Granite Two and High Minarets continued at an increasing pace with security precautions remaining strict for High Minarets. Very few people were aware of the second plan. According to General Shazly only fourteen people were ever aware of the entire High Minarets plan as it evolved. Those in the know were seven members of the Egyptian High Command, six in the Syrian High Command, plus one Egyptian officer who ran the special staff set up in January 1973 to coordinate Egyptian and Syrian planning.

As military preparations continued in 1972 and 1973 for the "inevitable war" with Israel President Sadat pursued diplomatic initiatives for a settlement. As stated earlier Sadat's attempts at a diplomatic

resolution to the problems were frustrated by Israeli intransigence and what he saw as American indifference. Discussion of those diplomatic attempts in 1971 and 1972 is now needed.

The diplomatic attempts by Swedish diplomat

Gunnar Jarring, originally appointed by United Nations

Secretary General U-Thant in November 1967, to resolve

the differences between the Arabs and Israel proceeded

off and on through late 1970 with no success. As the

talks entered their fourth year in 1971, his

discussions with Israel, Jordan, and Egypt, showed

some signs of concessions, but officially nothing had

changed. With Nasser's death in 1970 Jarring began

attacking the core of the problem — the differences

between Egypt and Israel. He hoped Sadat would be more

responsive to his initiatives. On 8 February he wrote

both countries' leaders requesting commitments from

each of them. From Egypt he requested:

". . . (1) termination of all claims or states of belligerency, (2) respect for and acknowledgement of Israel's sovereignty, territorial integrity, and political independence, (3) respect for and acknowledgement of Israel's right to live in peace within secure and recognized boundaries, (4) responsibility to do all in its power to ensure that acts of belligerency or hostility do not originate from or are not committed from within Egypt against . . . Israel, and (5) non-interference in Israel's domestic affairs." 39

From Israel he requested:

". . . (1) committment to withdraw its forces from

the Sinai to the pre-1967 lines, which was dependent on satisfactory arrangements for demilitarized zones, (2) freedom of access by Israeli ships to the Gulf of Aqaba past Sharm el Sheikh, and (3) freedom of navigation through the Suez Canal."

A week later Sadat replied to Jarring's initiative and agreed to all the stipulations provided Israel agreed. Egypt would accept a UN force on the borders. Israel replied eleven days later. Many of the proposals were agreed to, but the central committment was not accepted. Israel agreed to "withdraw to the secure, recognized and agreed boundaries to be established in the peace agreement . . Israel will not withdraw to the pre-June 5, 1967 lines." 41

Jarring and U-Thant continued to try to persuade Israel to accept the proposals to at least the pre-1967 Sinai borders, but Israel remained firm in its stance. On 7 March, Sadat refused to extend the ceasefire which had been in effect since August 1970. There were no further UN attempts to arrange any agreements until the following year when the new Secretary General Kurt Waldheim requested Jarring to make another attempt to start negotiations. That attempt ended with the same results.

Near the end of 1970, Israeli Minister of Defense Dayan had made a proposal for an interim solution to the conflict. In the proposal Israel would pull back a short distance from the Canal, enabling the Egyptians to reopen the Canal and allowing civilians necessary for operating it to come to the east bank. He believed this would create a buffer zone between Israeli, Egyptian, and Soviet forces. On 4 February 1971 Sadat presented his proposal for a partial settlement. It also allowed for reopening of the Suez Canal, but diverged from the Israeli proposal; it defined the initial withdrawal as only the first step in a total withdrawal from the Sinai. As with the Jarring proposal, this was unacceptable to Israel, and the stalemate continued. **3

On 4 May American Secretary of State William Rogers, accompanied by Assistant Secretary of State Joseph Sisco, arrived in Cairo to discuss the negotiations with Sadat. Their arrival was complicated by the internal problems Sadat was facing with Ali Sabri and his followers. The proposals that Rogers and Sisco brought for a settlement were basically the same ones they had proposed in 1967-1968. Their proposal called for a partial settlement for continuation of the ceasefire, reopening the Suez Canal, and a limited Israeli withdrawal, which was basically the Israeli counterproposal to the Jarring request earlier in the

year. Sadat was frustrated by the American attitude of seemingly trying to extract concessons from Egypt while supporting Israel's stance. Sadat's frustrations and the Soviet Unions alarm at the US-Egyptian negotiations prompted quick Soviet reaction. Soviet Union President Nikolai Podgorny was sent to Cairo to produce the Soviet-Egyptian fifteen-year Treaty of Friendship and Cooperation. **

At approximately this point in time Sadat believed that 1971 would be a "year of decision." Egypt, meaning Sadat, would have to make a decision during 1971 about the course the country would take on the Israeli issue. Sadat's talks with the Americans earlier in 1971 were attempts to arrive at a political solution to the problem. By mid-year he was becoming totally disillusioned with the American position. As 1971 ended, he abandoned the political solution for a military solution, but did not totally discard the diplomatic course.

Relations with the Soviets in 1971 grew increasingly tense as the year progressed. Since 1970 the Soviet presence had grown considerably. Upwards of 21,000 Soviet military personnel and advisors were in the country by the end of 1971.

Sadat made two trips to Moscow in 1971 seeking

Soviet military and political support for the Israeli problem. On 1 March, the first of these two trips, he sought three things: (1) a basic joint Egypt-Soviet military and political strategy towards Israel, (2) arms that would give Egypt military equality (as Heikal calls it) with Israel, and (3) a continued flow of arms from the Soviet Union to Egypt with no strings attached. Evidently the Soviets were willing to provide defensive arms, but requests for offensive weapons were met with either denials or conditions that they only be used with Soviet authority. These conditions were totally unacceptable to Sadat. His second visit in November accomplished little and did nothing to lessen the frustration Sadat felt towards the Soviets. **

For many in the Egyptian military, the Soviets were becoming intolerable. Friction grew between the advisors and Egyptian officers and soldiers because of the Soviet arrogance and condescending manner. Soviet reluctance to turn over control of weapon systems to trained Egyptian crews likewise increased tensions. At higher levels of command, Soviet refusal to give Egypt the most sophisticated equipment (i.e., MIG-21s instead of MIG-23/25s) frustrated Egypt's military leaders.

Arms shipments and delivery schedules agreed on in an

October 1971 arms agreement began falling behind schedule in early 1972. The Soviet Union also began demanding hard currency for the weapon systems. This frustrated Sadat. By late Spring 1972 Sadat was becoming totally disenchanted with the Soviet presence in Egypt. He believed the growing American-Soviet political moves towards detente were responsible for the arms shipment slowdown. It appeared the Soviet government, like the American government, was only interested in maintaining the status quo in the Middle East. 47

The Soviet-Egyptian problems continued and reached a climax on 6 July 1972 when President Sadat issued an order expelling the Soviet technicians. The order was to take effect on 17 July. In a conciliatory gesture, Sadat allowed a limited number of technical specialists and instructors to remain in Egypt. Sadat offered to review future cooperation under the terms of the Treaty of Friendship and Cooperation after the withdrawal. The Soviets departed on schedule. Sadat hoped this move would shock the Soviets into resuming arms shipments. While the expulsion of the Soviets would enable him to proceed on any future course he wished to take against Israel without Soviet interference, Sadat also wanted to maintain an ongoing

relationship with them, including arms deliveries which he knew would be required for the upcoming battle. **

The "shock" Sadat hoped for seemed to work.

With the help and mediation of President Hafez Assad of Syria in October, the deteriorating relationship between Egypt and the Soviet Union ended. Existing agreements for Soviet use of naval facilities on the Mediterranean Sea were renewed in December. In early 1973 Minister of War General Ismail went to Moscow to request more arms. The request was approved and shortly thereafter, the arms began to arrive.

In late February and early March 1973 Sadat sent his National Security Advisor Hafez Ismail to Washington to discuss possible solutions of the Middle East problems with newly inaugurated President Nixon. The meeting between Ismail and Nixon was promising. Nixon agreed negotiations should begin. Later, Ismail met secretly with Henry Kissinger to discuss the issues. United States policy had changed little since the Rogers-Sisco initiatives in 1971. For Sadat and Ismail the discussions were unproductive. Israeli Prime Minister Golda Mier's trip to Washington a few later and the announcment that the US would supply additional Phantom and Skyhawk aircraft to Israel played an important part in Sadat's subsequent decision

to go to war. 50

President Sadat began diplomatic overtures with Syria, Jordan, and Saudi Arabia in earnest during the summer of 1973. Contacts with Syria were made in 1970 shortly after Assad had taken over the country following a coup. Both realized a two-front war with Israel was necessary if either hoped for success. However, they held radically opposing views on when and how action should take place, due in part to the nature of the Israeli stance on the occupied lands. The Israeli stance on the return of the Golan Heights and the Sinai was that the former was not negotiable while the later was, in part or all. Complicating this alliance was a great deal of mistrust between Sadat and Assad. From the Syrian point of view, the strategic Golan Heights, which offered the Israeli forces positions within sight of Damascus, might be sold out if the Egypt signed an agreement with the UN or US that allowed the return of the Sinai. Egypt remembered the 1967 War when Syria dragged them into the war and then refused to fight. 51

This conflict of interests remained nearly unchanged until early 1973 when a number of events brought the two countries' leaders together. In January the Israelis launched air attacks against

Syrian troops in retaliation for terrorist activity in northern Israel, which they believed was sponsored by Syria. Israel threatened to intensify the attacks if Syria continued to support guerrilla activity. The student unrest of 1973 caused by Egyptian inactivity against Israel, the government controls on political activity, and the appointment of Ismail as War Minister in 1972 increased Sadat's desire for cooperation with Syria. This led to increased activity between Egyptian and Syrian military planners preparing for the October War.

Jordan's problems with the Palestinian Arabs in the country was a significant matter confronting

Sadat's attempts to solidify the Egypt-Jordan-Syria tripartite needed to confront Israel. Since the 1967

War Jordan had been the home for many Palestinians who had fled Israel. In 1968 King Hussein demanded the 2,000 armed guerrillas of the Palestinian Liberation Organization (PLO) in Jordan accept military orders from the Army Headquarters. The PLO refused because they believed they would be prohibited from crossing into Israel to conduct raids. In November gunfire exchanges erupted between the PLO and the Jordanian Army troops. Political pressure from Arab states to allow the PLO use of Jordan as a home base and fear of

Israeli retaliation against Jordan placed Hussein in an uneasy position. He walked this tightrope for two and a half years. The uneasy truce gave way in September 1970. Following an abortive assassination attempt, Hussein dismissed the civil government and installed a new military government staffed by some anti-Palestinian army personnel. Heavy fighting between army units and guerrillas broke out. On 20 September a Syrian armored brigade moved across the border and attacked Jordanian units. The Syria-Jordan confrontation ended on 26 September when the Jordanians drove the Syrians back across the border. \$\frac{\pi}{2}\$

Sporadic fighting continued between guerrillas and Jordan Army units through July 1971 when the army waged a six-day campaign against the guerrillas and effectively eliminated the PLO as an entity in Jordan. Syria subsequently broke off diplomatic relations. United States shipments of arms to Jordan in early 1973 and Hussein's overtures of a separate peace with Israel shortly thereafter did little to ease Arab fears of Jordan's motives.

King Fiesal of Saudi Arabia broke the impasse between Jordan, Egypt, and Syria during the summer of 1973. The tripartite summit in early September 1973 cleared the way for an agreement on a three-front

military campaign against Israel. Sadat's one final requirement to successfully mount a campaign against Israel had been surmounted. 35

During the summer of 1973 Egypt and Syria escalated their plans and activities. Mobilization and exercises up to the Canal increased as part of the Egyptian deception plan. Not all the troops mobilized and sent to the Canal on exercises were pulled back. Each year the maneuvers had grown larger. By September 1973 division size units were being employed during the mobilization exercises. Brigades were being sent out in the morning but only battalions were returning at night after finishing the "training day." Two-thirds of the men remained in their battle positions. Guns, heavy equipment, and ammunition were brought forward at night and buried or camouflaged to prevent daytime detection. Canal crossing equipment was moved to the front as late as possible. When it was finally brought forward, it was delivered in special crates so trucks carrying them did not appear to be engineer corp's trucks. The crates of equipment were then buried in pits specially dug for them. 56

Israeli and American intelligence sources had noticed the increased movement of troops and equipment both in the west and the north. The indicators showed

an ominous buildup of forces larger than previous mobilizations. Israel was skeptical of Egyptian intentions, believing they could not, and would not, attack Israel. Israel casually dismissed the activity as the usual autumn maneuvers. Israel had mobilized in May following increased military activity in Syria and Egypt, the collapse of the Lebanese government, and the increase in terrorist activity directed against northern Israeli villages. Nothing came of the increased tensions. Israel mobilized, but at a tremendous expense to the economy. **7

The Egyptians used another deception to feed false information to the Israelis.

"The press was used cleverly by the Egyptians. They planted items in a Lebanese newspaper about the neglect and deterioration of Soviet equipment in the Canal Zone. . . The Egyptian press carried the story of an American oil company which had signed an agreement to begin construction of a pipeline in the Canal area. . . a public notice was made in Al-Ahram [the semi-official Cairo newspaper] encouraging officers to put their names down for leave to make the Umhar, or small pilgrimage which is frequently made Al-Ahram was chosen for many of after Ramadan. these leaks because it was known Israel received copies of the paper via Cyprus and the Al-Ahram editor, Mohamed Heikal, was a confident of Sadat." 50

Final preparations for the operation — the date and time — had to be set. Hydrological tables were analyzed to find dates and times for optimal Canal tides and currents. Several possible dates were

selected. Partial moon was required for movement of bridges and ferries up to and across the Canal during the early part of the night with illumination fading later to provide cover of darkness for moving troops and equipment. This narrowed the selections to three or four dates. The first week of October was one possible date. This was during Ramadan, the Islamic month of fasting when the Israelis would least expect a crossing. The tenth day of Ramadan, 6 October, was selected as the optimal date. This was also the traditional anniversary of the date the forces of the Prophet Mohammed won their first victory at the Battle of Badr in 624 A.D. Thus, Operation High Minarets became Operation Badr. The sixth of October was also the Jewish holy day of Yom Kippur, a significant circumstance affecting the mobilization of the Israeli Defense Forces, as will be seen in Chapter IV. 39

At 1400, 6 October 1973, the coordinated attack on Israel, "Operation Badr" commenced.

CHAPTER III

ENDNOTES

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CHAPTER IV

THE ISRAELI PERSPECTIVE August 1970 - October 1973

"The overall balance of power is in our favor, and this fact is overwhelmingly decisive in the face of all other considerations and prevents the immediate renewal of war. . . Our military advantage is the outcome of both the weakness of the Arabs and our increasing strength. Their weakness arises from factors that I do not suppose will quickly disappear. . . Our superiority can, in my opinion, be maintained in the coming years as well."

Moshe Dayan, Israel's Defense Minister, made this statement only two months before the start of the October War. It summed up the prevailing opinion of the Israeli political and military institutions following the Six-Day War. This was only one of many flaws in the Israeli perception of Arab intentions and capabilities and Israeli military strategies following the war. This chapter discusses and analyzes those flaws, and chronologically details the events between the end of the War of Attrition in August 1970 and the outbreak of hostilites at 1400 hours on 6 October 1973.

By August 1970 the foundation of Israel's deterrence was based on four factors: (1) the superiority of the Israeli Air Force (IAF), (2) the Israeli's military and civilian intelligence network and warning capabilities, (3) the Israeli Defense Force's (IDF's) ability to mobilize quickly, and (4)

the IDF's ability to strike quickly and mount a powerful counterattack against an Egyptian attack across the Canal. 2

Israel reluctantly accepted the "Roger's Plan" on 31 July 1970. There were reservations about Egypt adhering to the ceasefire, and these fears were not unfounded. Between 23 July when Nasser accepted the principle of the ceasefire and 7 August when the ceasefire was implemented, the Egyptians and Soviets moved the SAM belt up to the west edge of the Canal. The IAF now confronted an elaborate and extensive missile system of SAM-2s, SAM-3s, and the new mobile SAM-6s, which extended the missile coverage 15-18 kilometers beyond the eastern side of the Canal. network of over 6000 missile launchers stretched the length of the Canal and extended back to Cairo. were manned by Soviet crews. Nasser contined preparations for the final part of his plan to liberate the Sinai. 3

The acceptance of the Rogers' Plan gave the Israelis a respite from the attacks and bombardment Egypt had inflicted on the Bar-Lev Line and the Israeli military forces during the preceeding year. Although the Bar-Lev Line was still important to Israel's defensive strategy, critics in the military and the

Israel had adopted following the Six-Day War. A debate between the military and legislature ensued during the summer of 1970 on continuing the current strategy and improving the Bar-Lev Line, or reverting to the commonly adhered to strategy of mobile defense. The traditionalists were overruled by the proponents who wanted to maintain the static defense.

In late August Israel began strengthening the damaged portions of the Bar-Lev Line. A second line of fortifications was constructed eight to twelve kilometers behind the main line, providing cover for tanks and artiliery. Eleven new fortifications and an infrastructure of roads and artificial barriers (sand ramparts up to 60 feet high) were constructed. These sand ramparts were designed to make the east side of the Canal impassable to tanks and armored personnel carriers. Other improvements, including extensive minefields, wire defenses, improved airfields, and underground headquarters, were completed and gave added defensive capabilities to the IDF. This defensive network cost over 500 million dollars for improvements in the Sinai, and approximately 40 million dollars of this was spent on the fortifications. 4

The Line was a major factor in Israel's

strategy adopted after the Six-Day War. As stated earlier, debates were common about which type of defensive strategy Israel should adopt. The depth of the post-1967 borders gave Israel a new strategic option, unavailable in the past, since the major population centers of Israel were now farther removed from the Egyptians. The Suez Canal and the Sinai Desert were barriers which would deter Egyptian attacks. Israel now had an option of either launching a pre-emptive strike against Egypt if an attack seemed imminent, or waiting for Egypt to attack and using the desert's vastness to maneuver, consolidate, and counterattack. The latter option was internationally politically advantageous because the international community would not view Israel as the aggressor.

However, there was an error in this policy. In previous wars with Egypt, the movement of Egyptian forces across the desert gave Israel sufficient warning to mobilize their reserves. During the period that the IDF manned the Bar-Lev Line, a large portion of the Egyptian Army was directly across the Suez. Any sudden thrust across the Canal by the Egyptians could occur without giving them much warning time. This is precisely what happened in October 1973. $\stackrel{\leftarrow}{}$

The Egyptians felt the Israeli static character

of war offered them a number of advantages. They interpreted the construction of the Bar-Lev fortifications as a change in Israeli doctrine. Egypt viewed Israel's abandoning their mobile defense for static defense as negating Israeli superiority in swift offensive movement with their armored and air forces.

The previous Israeli doctrine of mobility had involved carrying the war into enemy territory. Their mobility and growing emphasis on armor and aircraft during the fifties and sixties, necessitated by the small geographical size and proximity of its population centers to the Arabs, were the weapons which allowed Israel to pursue this operational capability. Israel's forces developed far superior capabilities in conducting mobile operations then their enemies. National and international constraints also dictated limitations on the duration of the wars and a heavy reliance on a reserve system. Thus Israel had to be able to take military initiatives. This major shift in Israeli strategic doctrine developed after the Six-Day War. This change of basic doctrine, from carrying the war into the enemy's territory to a doctrine of strategic depth, was perceived by the Arabs as allowing for major changes in both Israel and Egypt. 7

The Egyptians viewed this change as totally out

of character for the IDF which required long periods of preparation to mobilize their forces. The IDF did not have a history of static defense of this magnitude. The Egyptians believed they enjoyed several advantages against this defense: superiority in manpower, superiority in types of artillery, and superiority in deployment of the artillery along the Canal.

Another change occurred after 1970. The Israelis had relied on a counter-force strategy prior to 1970. Then a new deterrent posture of countervalue strategy gradually developed. This was an extension of the deployment of the F-4 Phantoms, in addition to the increased use of the air force by the military. Political and ideological factors also contributed to this change. Israel felt they could more easily defend their borders now against an Arab invasion. The possibility of another attritive war and how to deter it were considered, and the countervalue strategy seemed workable. The Arabs' attacks would be countered with retaliatory attacks against their economic infrastructure deterring any further attacks. Likewise, the Arabs would know the price of these attacks prior to initiating them. Thus, secure borders and a defensive strategy had to be linked with some form of "deterrence-by-punishment" if Israel were to

defend itself and prevent a war from actually occurring. *

It became essential to Israel to deter war, not only because she did not want war, but because the Israeli political position from 1970 to 1973 was based on the assumption that the status quo created in 1967 was paramount; Israel should not be pressured into changing it, even by the United States. This position became more credible after the War of Attrition. The air force became the major instrument of maintaining the status quo. 10

Futhermore, the perception that Egypt could not successfully mount an offensive against Israel was based on Israel's intelligence collection capabilities and their assumption the intelligence network would give them adequate warning to mobilize forces for an impending attack. 11

An impending attack is normally indicated by many military, diplomatic, and civil signals.

Traditional military signals include mobilization of troops and reserves and movements of equipment to staging areas. Warning signals in the civilian community include air raids drills, food stockpiling, and media announcements concerning preparations to be made. Abrupt rhetoric changes increased and heated or

also an indicator of possible hostilities. A competent intelligence network acquires, collates, and evaluates these signals and passes them on to the government policy and decision—makers for political or military action. Israel had an outstanding intelligence network for collecting and assimilating data. The military and the government believed the intelligence community would be able to "read" developments in the region and provide adequate warning of an Egyptian crossing to the troops on the Bar—Lev Line and give them time to implement the IDF mobilization plan so the mobilized forces could counterattack and move on the offensive. Israel's overall defense system and survival was based on this capability and advanced warning. 12

The intelligence service of Israel was composed of four agencies prior to the October War. The primary agency was the Military Intelligence Branch (Modin), which had grown in size and scope and now held a monopoly over national intelligence evaluations. The Central Institute for Intelligence and Security (Mossad) operated primarily in foreign countries and conducted counterintelligence. A third agency, Shin Beth, was responsible for internal security, counterespionage, and combatting Arab terrorist

activity. Finally, a small research unit at the Foreign Office handled political intelligence. Over the years the Modin had produced a cadre of experts known worldwide as the best intelligence people regarding information on the Middle East. The agency had thwarted other agencies attempts to expand or prepare independent evaluations. This created a problem; Israel was beginning to realize its military organization was only equipped with research and evaluation facilities to prepare intelligence data. They were not equipped to pass on their intelligences to the decision makers. There was no opposing intelligence agency to provide another opinion. 13

The growth of the numbers of aspects of intelligence affecting Israel grew dramatically during the late 60s and early 70s. The country soon found itself dealing with vast amounts of data which was beyond the capabilities of a purely military intelligence organization. The military collected, collated, and evaluated the raw intelligence information. There was no other Israeli government institution which could evaluate or check the evaluations of the military's intelligence data used to make policies or decisions. 10

The intelligence system provided no ". . .

independent political evaluation of the political intentions of political enemies based on the political, as opposed to the purely military situation." ¹⁵ As Avi Shlaim, noted British historian, stated in his assessment of the Israeli intelligence function prior to the October War:

". . . in the absence of any machinery or staff work at Cabinet level capable of providing an evaluation of its own or checking the evaluations presented by the Director of Military Intelligence, the acceptance of the latter's <code>[intelligence]</code> estimates was a forgone conclusion. The influence of Military Intelligence was also enhanced by the absence of an orderly procedure for the formulation of national intelligence estimates, a situation that left it to the professionals to tell the politicians what they thought the politicians should know, instead of the usual practice whereby the politicians tell the professionals what information they need to have." ¹⁶

Prior to Moshe Dayan's becoming Minister of
Defense, uniformed military personnel did not appear
before the Israeli Cabinet to present intelligence
briefings. Dayan made it a practice to attend meetings
of the Cabinet and the Foreign Affairs and Security
Council of the Knesset, accompanied by the Chief of
Staff and the Directory of Military Intelligence. This
practice decreased the separation between military and
civilian responsibilities in the Cabinet. The
combination of military personnel's appearances, their
prestige, and the lack of any other element's
capabilities to criticize, confirm, or dispute the

military's intelligence evaluations, made the acceptance of their estimates a foregone conclusion. 17

A series of events between 1969 and 1972 — ending of the War of Attrition, Nasser's death, the ceasefire between Egypt and Israel, and the civil war in Jordan — led to a feeling in the armed forces that an Arab attack against Israel was not feasible prior to 1975/76. This was reinforced by Israeli satisfaction with the post—1967 borders and the sense of security those borders offered. 10

Increased social pressures from the public for decreases in the defense budget and the estimates of the Arab's inablility to conduct a war in the near future led to significant cuts in the military's budget. These cuts impacted the intelligence community's organizations and there were major reductions in personnel and evaluation capabilities. This further compounded the effects on intelligence operations and evaluations. 19

Further complicating the problem was Israel's reliance on what became known as the "Concept." The "concept" originated shortly after the Six-Day War and probably reflected Israel's assessment of Egyptian Minister of War General Sadeq's support for an all-or-nothing strategy against Israel. The "concept"

estimated that: (1) Egypt would not go to war unless she could neutralize Israel's air superiority by attacking Israel in-depth, especially its main airfields and (2) that Egypt would not undertake a major attack on Israel without a simultaneous attack with Syria. But, the situation changed in 1970 when Egypt advanced the SAM belt to the Suez Canal. meant that Egypt's forces could operate on the east bank of the Canal under an air umbrella, deleting the requirement to strike at the airfields. Politically, Sadat's decision to initiate hostilities against Israel, break the status quo, and involve the superpowers was not as irrational as Israeli doctrine It represented a combination of force and diplomacy which would serve his limited aims and goals. By 1973 the "concept" had not been adequatly reexamined in light of the subsequent events between 1970 and 1973 - it was simply out of date. 20

A primary part of the Israeli defense plan was the assumption that intelligence could give the IDF at least 48 hours warning of Egyptian intent to start hostilities. The Modin had guaranteed the Israeli General Staff they could provide the 48 hours advance notice. On that basis, the General Staff worked out operational plans which included the following

scenario:

counterattack.

- H-hour minus 48 hours: the intelligence warning is received. Regular forces are on full alert and general mobilization of reserves begins. First armored reserve formations are at the front within 24 hours, most available power in 48 hours, and full compliments within 72 hours. Within a few hours of initial notification the air force is nearly 100% manned. Frontline forces are reinforced and backup frontline armored units take blocking positions within a few hours. Frontline mobile artillery is similarly advanced and deployed in prepared firing positions. (2) H-hour to H-hour plus 24: the enemy thrust is effectively contained by ground forces, without too much loss of life or loss of ground. The air force suppresses enemy air defenses, maintains air superiority, and strikes targets of opportunity. The reserve forces reach the front and armored forces
- (3) H-hour plus 24 to H-hour plus 72: the counteroffensive reaches its peak. Armored forces break
 through the enemy lines and envelope them, the air
 force has destroyed the enemy air defense system and
 destroys enemy positions. The destruction of enemy
 forces leads to a ceasefire. 21

This became the foundation of the IDF's defense plans. The IDF counted on the intelligence community's ability to provide adequate warnings with no surprises. Conversely, the Arabs counted on surprise. In October 1973 the Arab's superb deception plan worked; Israeli intelligence failed to provide the High Command the "guaranteed" 48-hour notification, moblization began only four hours before the Arab's "suprise" attack, and Israeli operation plans unraveled.

During the twelve days preceeding the October War, the Research Department of the Military Intelligence Branch processed lots of information about threatening enemy maneuvers and actions. The information caused some anxiety among many responsible authorities, but the Intelligence Branch did not correctly evaluate the warning this information contained; they issued an estimate of "low" or "lower than low" probability of war. 22

The Modin maintained their belief in the correctness of this evaluation up to the morning of 5 October. They stubbornly adhered to these estimates because: first, and foremost, was the continued reliance on the "concept." As stated previously, the "concept" was probably viable between 1967 and 1970, but it failed to consider the military and political

changes in Egypt between 1970 and 1973. Secondly, the Intelligence Branch believed that the military, political, and civilian indicators of increased tension would give sufficient warning to the branch to mobilize the reserves. But that required a political analysis of the intelligence material, and Israel did not have that capability in its monopolistic intelligence

A third reason for the Modin's low probability of attack warning was the high cost of the mid-May 1973 mobilization, ten million dollars. There were clear signs that Egypt was preparing for war: ground forces were moved to the Canal; during the previous month 65 ramps had been built along the Canal; tank ramparts had been built on the west bank overlooking the Israeli positions; new descents to the Canal had been opened; the Egyptian civil defense had been mobilized; a black-out was declared in the cities; blood donors were called for: and Sadat issued war declarations and talked of the upcoming phase of confrontation. The Modin, however, issued a very low probability of war. This was overruled by Chief of Staff General Daniel Elazar and the government. The reserves were mobilized, but there was no attack. Did the mobilization stop the planned attack, or was Sadat

engaging in a subtle game of "cry wolf" in order to lull the Israelis into a false sense of security?

Whichever it was, it validated the Modin's assessment and proved General Elazar, and those who supported him, wrong. 24

Indirectly contributing to Israel's lack of readiness in October 1973 was their preoccupation with increasing problems from Palestinian guerrillas or Fadayeen (those who are willing to sacrifice themselves for the sake of their cause). Objectively, the activities of the guerrillas were of no consequence, but psychologically, they were important because they hardened the Israeli attitudes towards the Arabs. In the winter of 1972-73 the IDF devoted a large portion of its time to combating the Fadayeen and terrorist activity. Beginning with the 1972 Munich Massacre, the guerrillas effectively countered on the battlefield, attempted to disrupt international travel and attack Israeli targets abroad. They were financed and supported by all the Arab governments except Jordan. 200

The Fadayeen presented two problems to Israel, which disrupted their concentration on the Egyptian preparations along the west bank. The first was the potential that the Fadayeen would exert pressure on Israel to give up the occupied territories without

adequate settlement terms. Secondly, the Israelis feared the Fadayeen's harassment of the country's day—to—day security, disruption of its orderly life, and creation of internal strife and weakening of morale through continual acts of terrorism and sabotage. 24

Israel felt its military could handle the first problem fairly easily, through any one of several military options. The second problem however caused them consternation. Constant acts of sabotage and terrorism could escalate and might require drastic supression measures. This could create internal and/or international pressure on Israel to halt the measures. Quitting under pressure could jeopardize Israel's long-term quest for peace and security. 27

On 28 September two members of the Syrian
Fadayeen, the Saiqa (Eagles of the Palestine
Revolution) hijacked a train at the Austrian border
carrying Russian Jews from Moscow to Vienna. They
demanded the Austrians close Schonau Castle near
Vienna, which was used as a transit center for the Jews
enroute to Israel. The Austrian Chancellor Bruno
Kreisky agreed to their demand. Israelis were angered
and embittered by this decision. They temporarily lost
sight of the ominous Egyptian buildup across the Canal.

Egyptian maneuvers and buildups all along the Canal and Syrian buildups along the border on the Golan Heights by 1 October. These signs should have been cause for alarm, but there were twice as many signs revealing no apparent cause for alarm. The final concensus to explain the buildup was the annual Egyptian mobilization exercises, and the threat was still regarded as "very low."

On 2 October, because of the increased Egyptian buildup and maneuvers, the armored division of Major General Avraham (Albert) Mandler was placed on alert along the Canal by the Southern Command. The Commander of the Southern Command, Major General Shmuel Gonen, visited the Canal Zone and issued an order ensuring a higher state of alert. The assembly of a preconstructed bridge, to be used if the Israelis crossed the Canal was accelerated. All camps in the Sinai increased security. 30

A 3 October intelligence briefing to the Cabinet identified the disposition of the Egyptian forces and indicated their capability of launching an attack momentarily. The briefer stated he did not believe they were about to do so. Chief of Staff Elazar briefed on the IDF and IAF state of readiness

and the IAF and recommended leaving them at their existing strengths. None of the Cabinet ministers dissented or asked questions about the intelligence evaluation or recommendations to increase the alert measures. 31

On the evening of 4 October the Israelis received reports the Soviets were evacuating their families from Egypt. These reports, along with other reports of activity along the borders, prompted the General Staff to order a "C Alert" for the army – the highest alert condition short of mobilizing the reserves – and a full alert for the air force, including the reserves. This still did not undermine the confidence of the Modin or its rating for the probability of war. 32

On Friday 5 October the Cabinet met to be updated on the situation and to make decisions. Along the Canal the Egyptian Army was at a level of readiness and deployment not previously seen by the IDF. All five Egyptian divisions were fully deployed, five concentration areas for bridging and crossing equipment were filled, and all the ramps were prepared. The Israeli division in the Sinai requested reinforcements, including more troops at the strongpoints along the Canal and near the passes 30-35 kilometers east. The

chief of staff and the Modin restated that the Egyptians were at emergency stations equally suited for defense as well as offense, and that an attack was not imminent. General Elazar suggested the prime minister be given authority to mobilize the reserves if anything unusual happened over the Yom Kippur holiday. The Cabinet granted this authority before adjourning the meeting and departed, feeling everything was under control. General Headquarters (GHQ) IDF sent a message to the Southern Command denying their request for reinforcements, stating the Egyptian exercise was almost over.

At 0430 on 6 October 1973, the Chief of
Intelligence Major General Eli Zeira received a
telephone call that Israeli monitors had picked up
unmistakable radio traffic patterns of final
preparations for a combined Egyptian—Syrian attack
against Israel, commencing at 1800 hours that day. The
Modin could not give its "guaranteed" alert notice of
48 hours. The situation was assessed at a 0600
meeting. General Elazar urged total mobilization and
an air force preemptive strike. Dayan opposed the air
force strike but favored a partial mobilization, solely
for defensive purposes and a warning to Egypt that
Israel was aware of its plan and prepared to meet it.

Elazar objected and Dayan took both proposals to Prime Minister Meir for her consideration at 0800. Elazar went ahead and issued orders for mobilization of several thousand ground force reserves and the air force. By 0930 Meir had reached her decision, deciding on Elazar's proposal for total mobilization without the air strike and for Dayan's warning.

"The Prime Minister as well as the defense minister wanted to establish beyond doubt that Israel did not want war and did not start it, even at the cost of forfeiting to the enemy the advantage of striking first." 35

At noon the members of the Cabinet were summoned. Mrs. Meir discussed the situation and the probability of war breaking out late that afternoon. A discussion developed about the steps that would be taken to hold the attack prior to developing the counterattack. During the discussion, Mrs Meir's military secretary interrupted the meeting at 1355 and announced that the war had begun. It began four hours earlier than anticipated and only four hours after mobilization was initiated. 34

CHAPTER IV

ENDNOTES

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CHAPTER V

CONCLUSIONS

The period between 1967 and 1973 was not the time of peace and tranquility Israel had hoped would follow the Six-Day War. Conversely, it was one of the longest periods of conflict experienced in the region.

The Israelis had reason to be optimistic following the Six-Day War. They had soundly defeated the combined Arab armies while sustaining few casualties. Israel's borders had been extended and this provided a buffer zone between the hostile Arabs and Israel's major population centers. Israel's demonstrated military superiority should have been a warning to the Arabs that any further hostilities directed against Israel would be severely dealt with.

Following the Six-Day War the feeling of peace and security was broken by the Egyptian initiation of the War of Attrition. In response, the Israelis strategy evolved from mobile defense to static defense with weapons acquisitions and tactics continuing for a mobile defense. Israel made large weapon's purchases during these years of armor, aircraft, and APCs, armaments best used in mobile operations rather than static defense. Purchases of weapons more idealy

suited for static defenses, and those which Israel suffered a distinct disadvantage to Egypt, would have been artillery.

Israel's military leaders' condescending manner underrated the Egyptian soldier's potential fighting ability. Both military and political leaders continually misread Nasser's and Sadat's intentions and their resolve to regain the occupied territories. They believed Nasser and Sadat had alternately tried military and political means, with ineffectual results in both. Premier Meir summed up this philosophy when she responded to a question in May 1973 about the possibility of Sadat starting a war: "...he can gain nothing by war. He knows this. But all the same we believe he may act. If so we are ready to act." 1

The Egyptian strategy of attrition led Israel to devise new weapons, new concepts, and develop previous ones to meet the new challenges. New weapons developed included electronic countermeasure equipment to defeat the SAM-2s and SAM-3s. The static defense policy was a new concept developed during the War of Attrition. Israeli responses to Egyptian attacks were meant to deter further Egyptian attacks. Commando raids deep into Egypt and introduction of the air force escalated the war but did little to deter Egypt's

attritive war. The Soviet entry into the foray in 1970 further escalated the war and introduced direct superpower intervention into the regional crisis.

Israel's construction of the Bar-Lev Line was a major change in strategy. Adopting a static defense was counterproductive for the Israelis in the long run. First, the proximity of the line to the Egyptian forces forced Israel to fight a war of attrition on Egyptian terms, which it could not afford to do in terms of loss of lives and loss of equipment. Secondly, the advance of the SAM network neutralized the IAF's air superiority in the Canal sector which hampered defense of the Bar-Lev Line during the October War.

Finally, Israels reliance on the "concept" and the monopolistic military intelligence network were primarily responsible for the failure to anticipate the October War. The Israelis did not believe Egypt was committed to settling the conflict by military means, rather than by political or diplomatic means. The Israeli military continued to believe their military superiority would deter the Egyptians from waging a war in the near future and from involving them in a military confrontation.

Israel did not believe Egypt had the capability to wage a limited war, let alone a general

war. They did not discount Egypt's ability to undertake a Canal crossing; however, they did not believe that Egypt would attempt that until they had the air assets available to strike deep at Israel's airfields to neutralize the IAF. To accomplish this, they would require numerous medium bombers and fighter-bombers such as the SU-7, MIG-21, and MIG-23 to simultaneously attack the Israeli airfields. Israeli Military Intelligence believed the Egyptians could not produce enough pilots and receive enough aircraft prior to 1975. Therefore, Israel believed Egypt would not go to war prior to 1975. Sadat sought another solution to the Israeli problem due to the pressures he felt from internal problems with student unrest, the coming and going of the "year of decision" in 1971 with no action against Israel, and deteriorating public morale. He felt he could not wait until his air force could neutralize the IAF.

In essence, Israel saw the world through
Israeli eyes. She failed to sense the Egyptian mood
and gauge their deterimination to regain the occupied
territories, their honor, and their pride. However,
the Arab's deception strategy was a significant reason
for the intelligence failure. A combination of these
two elements did, in fact, delay mobilization of

Israel's reserves until 1000 hours on the day of the attack.

The Egyptian situation following the Six-Day War was dismal, at best. The army was utterly demoralized and there were charges and recriminations of blame. Shock, utter confusion, and deep anger prevailed throughout Egypt. Following his speech announcing his resignation and the popular call for him to remain as President of Egypt, Nasser felt that he had a mandate to reorganize and rebuild the army to recapture the lands lost during the war. This became his purpose and his goal – recover the occupied territories and regain Arab pride.

The lessons of the Six-Day War were not lost on the Egyptian leaders. Nasser's assessment of the military aspects of the war revealed several shortfalls in Egypt's military capabilities and superiorities of Israel's forces which needed modifying before Egypt could successfully mount a campaign against Israel. The analysis concentrated on five of these aspects:

(1) the surprise Israeli air attack (2) confusion within the Egyptian High Command (3) inability of the armed to conduct a coordinated military operation (4) lack of general planning and training for the Sinai operation and (5) poor leadership and courage at all

levels of the command. The Egyptian leader's energies during 1967 to 1973 were directed at correcting these problems in the services.

Egyptian experience in the Six-Day War also pointed out several Israeli advantages to be countered before the Canal crossing could take place. These were: Israeli air superiority, the IAFs ability to strike deep, the mobility of Israeli armored forces, and the Israeli mobilization capabilities.

To effectively neutralize the IAF superiority west of the Canal and their ability to strike deep within Egypt, a complex, deep missile defense system was constructed and in place by mid-1973. The network of SAM-2s, SAM-3s, and SAM-6s, along with the conventional antiaircraft weapons, provided an air unbrella which severely limited the IAFs operations along the Canal Zone. Movement of the missile network up to the Canal's edge also protected the crossing in October and extended the umbrella 12-15 kilometers east of the Suez Canal.

During the Six-Day War the Egyptian High

Command was riddled with incompetence and political

controversy which impacted its command and control

significantly. Nasser restructured the High Command to

resolve these problems and create unity of command and

purpose. He depoliticized the organization and formed an army of professional soldiers. The problems evident within the High Comand during the Six-Day War did not surface during the Canal crossing and the first days of the October War.

The Egyptians conceived a long-range strategy to recover the Sinai, the Golan Heights, and the West Bank of Jordan and Jerusalem. The strategy involved military as well as political actions. They realized whatever military actions they took, however limited, would prompt a massive Israeli reaction. They opted for a large attack which would be expensive to Israel in terms of manpower and equipment. They realized preparations for this attack would require time, training, new tactics, and adequate equipment.

New training methods, new tactics, and a new spirit were brought to the Egyptian Army between 1971 and 1973 with the appointments of Generals Ismail, Shazly, and Gamasy to the positions of Minister of War, Chief of Staff, and Director of Operations, respectively. They were the "glue" that bound together Sadat's plans to change the status quo in the Middle East. They conducted repeated exercises which trained the soldiers for operations required in the crossing of the Canal. The soldiers became intimately familiar

with the techniques, weapons, and equipment they would use in October 1973.

Israeli armor and mechanized forces had roamed almost at will during the 1967 War. If the Egyptian infantry were to face these units after crossing the canal, they needed protection and antiarmor capabilities to hold the bridgeheads. Large numbers of antitank guided weapons (ATGW), such as the Soviet Sagger and RPG-7 missiles, were incorporated into Egyptian tank hunting teams, at all levels of command. This provided a significant level of self-protection for the infantry. A very thorough antitank defense against Israel's armored forces evolved.

capability, the Egyptians decided surprise and speed would negate Israel's advantage. The Egyptians believed they had three to four days after initiating an attack before Israel's reserves could be committed fully to the counterattack. The need for surprise drove the Egyptians to innovation about the plans for the crossing. The need for speed with the use of high-pressure water pumps to break through the sand ramparts further delayed the Israeli counterattack. To accomplish this surprise, they were extremely secretive while preparing the Operation Badr plan. They mounted

an extremely effective misinformation campaign.

Mobilization of Egyptian forces, moving to the Canal and then withdrawing, was regularly accomplished, lulling the Israelis into a false sense of security and familiarity. They analyzed Israeli ideas and perceptions of Egyptian forces and then supplied information which substantiated Israel preconceived ideas of Egypt's state of readiness and fighting capabilities.

The Egyptian objective for crossing the Canal was to bring an end to the stalemate and the condition of "No War, No Peace." In 1973 Sadat and General Ismail believed that Egypt would not achieve military parity with Israel in the near future. Sadat reached a firm decision to go to war. He did not see any change in Israel's intransigent views on the status of the occupied territories. He believed that Israel would only accept the issues contained in Resolution 242 through pressure exerted from either the United States or the Soviet Union. Sadat believed the only way to end the "no war, no peace" stalemate was to take actions which would force the major powers and the United Nation to become involved. His decision to go to war was a political gamble designed to end the stalemate. He did not believe that defeat was

inevitable. He and Ismail agreed that a limited military operation was feasible.

Operation Badr was developed as a joint strategic offensive in cooperation with Syria. The specific Egyptian tasks were to: defeat Israeli forces on the west bank of the Canal by a deliberate assault crossing aimed at seizing five or more bridgeheads 10 to 15 kilometers deep; repel Israeli counterattacks; inflict maximum casualties on the enemy; and prepare for further missions. They hoped to secure Milta and Gilda Passes, but firm Egyptian control of a substantial strip of land on the east bank would be deemed a success. The objective was not so much to produce an outright victory or even military gains as such, but to end the stalemate and compel superpower and UN intervention.

The period between 1967 and 1973 was a critical period for Egyptian and Israeli military preparations leading to the October 1973 War. This study concludes that Egyptian preparations during this period included clear military and political objectives leading to a change in the regional status quo.

During the final stages of the Six-Day War, the Egyptian military forces fighting from defensive positions were destroyed. The Egyptian military forces

had been composed of poorly trained soldiers; an incompetent, politicized officer corps; and an unmanageable High Command structure. Prior to the October War, however, the military was well prepared to conduct offensive and water crossing maneuvers, and the missile umbrella was in place to negate the IAF air superiority. The military forces were composed of soldiers thoroughly trained and knowledgeable of the weapons, tactics, and equipment required to conduct maneuvers. The officer corps was led by competent, non-political, and battle-tested personnel aware of Israel's strengths and weaknesses and dedicated to a common goal - defeat of Israeli forces, restitution of the occupied territories, and restoration of Arab pride. The High Command structure had been restructured, permitting clear lines of authority and unity of command.

The secrecy of Egyptian planning; its clear goals, political and military; and the misinformation program also aided Egypt's ability to move up to the Canal without preemptive air strikes, such as occurred in 1967. Operation Badr was known to only a handful of Egyptian and Syrian staff officers until a few days prior to the attack. Yet the Egyptians were able to conduct effective training, mobilization of forces and

equipment, and Canal crossing preparations without arousing undue Israeli intelligence suspicions. This was due in large part to the carefuly orchestrated misinformation program the Egyptians used. Information planted to justify and supplement Israeli misconceptions about Egyptian goals and capabilities was well placed. Limited military goals to change the political status quo were designed to use the 1973 capabilities of the military services.

Israel's status after the Six-Day War was one of superiority in the region. Israel felt that it retained this superiority during the seven years following the war. This developed into the notional "concept" that was the basis for Israeli strategy between the wars. It was a viable tool immediately following the Six-Day War when Israel's superiority was unquestionable, but it failed to take into account changes in Egyptian goals and Egypt's resolve to regain the occupied territories, pride, and honor after the War of Attrition. Israel refused to believe that Egypt was committed to settling the conflict by military means.

This adherence to the "concept" contributed to Israel's intelligence community failure. The lack of a non-military intelligence agency to act as a counter-

balance to military assessments of intelligence data contributed to the errors in political evaluations of Egyptian actions. The mobilization of reserves, which Israel was so dependent upon, required at least 48 hours notification before they could be effectively employed in battle. The intelligence community had guaranteed that notification time and operational plans were developed upon that guarantee.

And finally, Israel's adoption of the static defense while equipping the military for mobile defensive operations created an atmosphere of confusion. The Israeli's still maintained the "mobility" mentality. The strategic depth afforded by the Bar-Lev Line and the Sinai led to the deterrent strategy of static defense, a revolutionary doctrine for the IDF. This static defense denied the IDF the initiative, mobility, and surprise that it was accustomed to; the IDF was unable to seize the initiative and take the battle to the enemy.

To summarize the preparations leading to the October War in a few short words: the Egyptians learned from their failures and from their knowledge of Israeli strengths and weaknesses during the Six-Day War, then vigorously applied corrective measures. The Israelis analyzed the weaknesses of the Egyptians and

their own strengths after the Six-Day War, then did little to reassess those views, retaining the perception of their strength and the Egyptians weaknesses.

CHAPTER V

ENDNOTE

¹ Edgar O'Ballance, No Victor, No Vanquished:
The Yom Kippur War (1978): 50.

CHAPTER VI

SURVEY OF LITERATURE

This chapter reviews pertinent literature used in research and development of this study. The materials used represent a variety of sources and authors. The main stream of information comes from Egyptian and Israeli sources. As would be expected, each national source primarily focuses on its own point of view. As with any project which focuses on a subject or region with such diversities in culture and politics as the Middle East, an unbaised view point is hard to achieve. However, by analyzing both sources, as well as other non-regional or unbiased materials, one can extract pertinent information free from the biases of the primary sources of information. Three categories of research materials were used: periodicals, books, and unpublished materials.

In analyzing Egyptian political and military objectives during the period between the Six-Day War and the October War, I found John Amos's book,

Arab-Israeli Military/Political Relations: Arab

Perceptions and the Politics of Escalation, and Yaacov

Bar-Siman-Tov's book, The Israeli-Egyptian War of

Attrition, to be invaluable sources of information.

Amos's book is an excellent source of Egyptian/Arab

political views and intentions during the late 1960s and 1970s. His analysis, although complex and at times tedious, is thorough and generally free of biases. He relies heavily on diversified, non-military Arab sources to formulate his analysis

Amos intended to focus on the events that led to the October War. He addressed three specific issues:

(1) the factors that led to Egypt's and Syria's decision to attack, and what their strategic and tactical goals were (2) the Arab military operations conducted during the war and their assessments of the operations and (3) the political and military implications of the war with specific references to the superpowers' interests. 1

To accomplish the assessment of those issues required an analysis of events in Egypt and Syria in previous years, specifically 1971-1973. Egyptian preparations for the October War were conducted with a thorough examination and adoption of lessons learned in the 1967 War. Amos skillfully assesses those Egyptian military, political and attitude changes between 1967 and 1973. He analyzes the series of changes in relationships that occurred inter- and intra-regionally between: Egypt and the West, specifically Egypt and the United States; Egypt and varying combinations of

Arab states; and Egypt and Israel. He shows the changes in the Arab's image of themselves, as well as the Western image of the Arabs. ² The "Notes and References" section contains an exceptional amount of information and sources which could used as a starting point for research on this subject.

Bar-Siman-Toy's book examines the events of the War of Attrition between 1969 and 1970. It is an outstanding source, analyzing the military and political considerations of this limited confrontation between Egypt and Israel. I felt the book was relatively free of bias and contains a logical analysis of the belligerents' aims using both Egyptian and Israeli sources. He reviews each stage of the war, describing Egypt's and Israel's reasons for pursuing specific courses of actions and reactions. He identifies the complex circumstances that affected both the expansion and limitation of the war, the pattern of relationships between Egypt, Israel, and the superpowers, and the subsequent problems affecting Egypt and Israel at the end of the war. Bar-Siman-Tov discusses the two primary factors limiting the war's scope and leading to its conclusion: (1) the limited ground capability of Egypt and (2) the external political constraints placed on Israel. He describes

the Israeli and Egyptian perceptions of the results of the war.

Primarily, Bar-Siman-Tov focuses on each stage of the War of Attrition and examines these stages from seven points of view: (1) the aims of Egypt and Israel (2) their strategies (3) the different kinds of military activity they use to achieve their strategies and aims (4) the principal military means utilized (5) the initiatives in belligerent activity (6) the nature of the interaction between Israel's and Egypt's activity on the Canal and (7) the diplomatic activity on the part of the superpowers relating to the region. He asserts the transition from one stage to the next was caused by escalatory actions of one of the belligerents. He describes the changes taking place in each belligerent's concept of war, as well as the development of the war because of these escalatory moves. 3

Elusive Victory, written by Colonel Trevor N.

Dupuy, U.S. Army, retired, is a historical commentary on the Arab-Israeli conflicts beginning in 1947 and ending after the October War in 1974. Sources for his work are English versions and translations of Arab and Israeli documents, interviews with Israeli and Arab military personnel, and United Nations Truce

Supervision Organization officers. The work provides some very generic historical data on events occurring in the region. There is very little in-depth analysis or political or ideological aims and strategies utilized by either nation. The book provides good chronological discussions of military events between the Middle Eastern belligerents.

Two books by Chaim Herzog, The War of Atonement and The Arab-Israeli Wars, were used in my research. The latter book discusses in depth the Israeli view of the War of Attrition. I used his sequence of events for the three stages of the War of Attrition in my discussion. He gave a good accounting of the military events of the war, with a certain amount of bias. His books, along with the political/military/ideological concepts outlined in Bar-Siman-Tov's book, provide a definitive analysis of the Israeli aims during the War of Attrition.

Herzog's other book, The War of Atonement,
provided information about the intelligence failure and
Israeli complacency during the last months of peace
before the October War. His discussion of the
intelligence evaluation of Egyptian and Syrian
maneuvers and the political confusion that ensued
during the six days preceeding the war illustrated the

fallibility of the intelligence and political climate in Israel.

Insight in the Middle East War by the Insight
Team of the Sunday (London) Times, is an excellent, but
limited, source of material. Basically the book is a
compilation of reports from Sunday Times correspondents
and reporters, regional journalists, and documentary
material from United States Department of Defense. The
book deals less with the military aspect of the
six-year period of this thesis and more on the
political aspect. The substance of the material seems
to be very middle-of-the road with no particular bias.

The Israeli intelligence failure is the theme of a Defense Intelligence School paper written by Kathryn A. MacKinney. He paper, "Egypt and Israel: The Intelligence Prelude to the October War of 1973," discusses the intelligence problems in the United States and Israel which led to Israel's lack of preparedness. She discusses Israel's perceptions and beliefs in its military superiority and its ability to halt any Egyptian attack. She continues with the psychological problems in Israel which decreased its perceptions of the situation and Egyptian intentions. The paper is a good start for research into Israeli intelligence activities and perceptions following the

Six-Day War.

Vanquished: The Yom Kippur War, is an account of the 1973 War compiled from research and interviews conducted during visits to Israel and Egypt.

O'Ballance's account is grandiose in its style. He uses more statistics that most sources I reviewed. He gives a good description of the order of battle for both belligerents and provides more details on the Israeli forces composition and structure preceding the outbreak. Some facts on the political views of Israel and Egypt are discussed.

The Crossing of the Suez, by Lt. General Saad El Shazly, is an excellent source of material on Egyptian military preparations for crossing the Canal, the crossing itself, and post-crossing events. Shazly is very knowledgeable of these events because of his involvement as the Egyptian Chief of Staff, tasked to prepare the crossing plan by Sadat. However, a note of caution needs to accompany the use of this source. Shazly wrote this book to counter accusations and misrepresentations made principally by Sadat of Shazly's role in the October War. In essence, Shazly had an "ax to grind," and may have given too much credit to himself for his role in the war. However,

taking this into consideration, the book remains a good source of insight into the thorough Egypt planning and preparation for the Canal crossing.

An excellent source for illustrating the internal operations and thinking of the Egyptians and the role of the superpowers during the 1967-1973 period is The Road to Ramadan, by Mohamed Heikal. He was editor-in-chief of the official Egyptian newspaper, Al Ahram, and Egyptian Minister of Information between 1970 and 1974. He was also a confident of Presidents Nasser and Sadat. As a friend and political advisor to the presidents, he was quite familiar with the events behind the scenes. He discusses many personal and political events which give added depth to understanding the Egyptian process of rebuilding the nation's army and morale after the Six-Day War.

I used material from many other sources, but these primary sources were a good start for study of the Arab-Israeli conflict between the Six-Day War and the October War.

CHAPTER VI

ENDNOTES

- ¹ John W. Amos II, <u>Arab-Israeli</u>
 Military/Political Relations: Arab Perceptions and the
 Politics of Escalation (1979): 3.
 - 2 Ibid.: 206-208.
- S Yaacov Bar-Siman-Tov, The Israeli-Egyptian War of Attrition, 1969-1970 (1980): 3-4.

APPENDIX 1

Appendix 1-1

ABBREVIATIONS AND ACRONYMS

- 1. APC Armored personnel carrier
- 2. ECM Electronic countermeasures
- 3. HEAT High explosive anti-tank munition
- 4. IAF Israeli Air Force
- 5. IDF Israeli Defense Force
- 6. PLO Palestinian Liberation Organization
- 7. SAM Surface-to-air missile
- 8. U.N United Nations
- 9. U.S. United States
- 10. U.S.S.R. Union of Soviet Socialist Republics

Appendix 1-2

Terms Defined

- 1. Air superiority: That degree of dominance in the air battle of one force over another which permits the conduct of operations by the former and its related land, sea and air forces at a given time and place without prohibitive interference by the opposing force.
- 2. Al-Naksa: Arabic meaning the set back or the degeneration.
- 3. Amphibious raid: A limited type of amphibious operation; landing from the sea on a hostile shore involving swift incursion into, or a temporary occupancy of, an objective, followed by a planned withdrawal.
- 4. Anti-tank Guided Heapon System (ATGH): A missile system of comparatively short range and high lethality designed for use against armor by infantry or artillery units.
- 5. Armored Forces: A formation which contains a preponderance of armor, eg. tanks, armored cars and self-propelled guns. Usually supported by infantry in APCs.
- 6. Armored Personnel Carriers (APCs): An armored vehicle with cross country capability for transport of troops within the battle area.
- 7. Attack Aircraft: A fighter-bomber or bomber aircraft capable of delivering conventional or nuclear weapons.
- 8. Attrition: The reduction of the effectiveness of a force caused by loss of personnel and material.
- 9. Bridgehead: An area of ground held or to be gained on the enemy's side of an obstacle.
- 10. Ceasefire: The order to suspend hostilities.
- 11. Counterattack: Attack by a part or all of a defending force against an enemy attacking force.
- 12. Counterfire: Fire intended to destroy or neutralize enemy weapons.

- 13. Counterintelligence: The phase of intelligence covering all activity devoted to destroying the effectiveness of inimical foreign intelligence activities and to the protection of information against espionage, personnel against subversion, and installations or materials against sabotage.
- 14. Deception: Those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence to induce him to react in a manner prejudicial to his interests.
- 15. Defense in Depth: The siting of mutually supporting defense positions designed to absorb and progressively weaken attack, prevent initial observations of the whole position by the enemy, and to allow the commander to maneuver his reserve.
- 16. Demilitarized zone: A defined area in which the stationing, or concentrating of military forces, or the retention or establishment of military installations of any description, is prohibited.
- 17. Direct fire: Fire directed at a target which is visible to the aimer.
- 18. Electronic countermeasures (ECH): The part of electronic warfare involving actions taken to prevent or reduce the effectiveness of enemy equipment and tactics employing, or affected by, electro-magnetic radiations and to exploit the enemy's use of such radiation.
- 19. Escalation: The sequence of events and the appropriate responses which increase the tempo of conflict, whether diplomatic or physical.
- 20. Hazima: Arabic for defeat.
- 21. Maozim: The series of 17 fortress along the forward edge of the Bar-Lev Line.
- 22. Mobility: A quality or capability of military forces which permits them to move from place to place while retaining the ability to fulfill their primary mission.
- 23. Hobilization: The process by which the armed forces or part of them are brought to a state of readiness for war or other national emergency.

- 24. Hodin: The Military Intelligence Branch of Israel's intelligence community which was the primary collection, evaluation, and assessment agency.
- 25. Hossad: The Central Institute for Intelligence and Security operating primarily in foreign countries and conducting counterintelligence.
- 26. Speed of Sound: The speed at which sound travels in a given medium under specified conditions. The speed of sound at sea level in the International Standard Atmosphere is 1,108 ft/second, 658 knots, 1,215 km/hour.
- 27. Strategy: The plans for conducting a war in the widest sense including diplomatic, political, and economic considerations was well as those of a purely military nature.
- 28. Strongpoint: A key point in a defensive position, usually strongly fortified and heavily armed with automatic weapons, around which other positions are grouped for its protection.
- 29. Subsonic: Of or pertaining to speed less that the speed of sound.
- 30. Supersonic: Of or pertaining to speed in excess of the speed of sound.
- 31. Surface-to-Air Hissile (SAM): Missile fired from the ground to destroy enemy aircraft or missiles.
- 32. Taozim: The 20 strongpoints of the Bar-Lev Line along the Artillery Road, 8-10 kilometers behind the 17 maozim, or fortresses.

SOURCE: Jane's Dictionary of Military Terms, Compiled by Brigadier P.H.C. Hayward, London: MacDonald & Co (Publishers) Ltd (1975).

Weapon's Systems

Egyptian

- 1. HIG-15 (NATO code name Fagot): single-seat, daylight fighter/bomber and interceptor. Low supersonic, single-engined aircraft with one internal gun and two underwing pylons for various stores and drop tanks. *
- 2. HIG-17 (NATO code name Fresco): single-seat daylight fighter/bomber and limited all-weather interceptor. Supersonic, single-engined aircraft armed with three 23mm cannons plus underwing pylons for varying types of ordinance. *
- 3. HIG-19 (NATO code name Farmer): single-seat fighter/bomber and all-weather interceptor. Supersonic, twin-engined aircraft armed with two or three 30mm cannons plus six external points for carrying varying air-to-air or air-to-ground weapons. *
- 4. HIG-21 (NATO code name Fishbed): single-seat fighter, limited all-weather multi-role, and reconnaisance aircraft. Supersonic, single-engined with twin-barrel internal 23mm gun and four underwing pylons for weapons or drop tanks. **
- 5. HIG-23 (NATO code name Flogger): single-seat, variable geometry tactical attack and all weather interceptor. Supersonic, single-engined aircraft with one five-barrel 23mm gun in fuselage belly pack, one pylon under center fuselage, one under each engine air intake, and one under each fixed inboard wing panel for rocket packs, air-to-air missiles, or other external stores. **
- 6. HIG-25 (NATO code name Foxbat): single-seat interceptor. Twin-engined, supersonic aircraft with four air-to-air missiles on underwing attachments. **
- 7. SU-7 (NATO code name Fitter): single-seat ground attack aircraft. Single-engine with two internal 30mm guns and six external pylons for rocket pods, fuel tanks, and other air-to-ground munitions. **
- 8. HI-8 (NAYO code name Hip): twin-turbine powered transport helicopter. Capable of transporting between

- 25 and 32 pasengers, depending on variant, up to 8820 lbs of cargo internally, 6614 lbs of cargo externally, or combinations not exceeding max takeoff load of 8820 lbs. *
- 9. SAH-2 (NATO code name Guideline): medium range surface-to-air missile. Radio commanded with a high-explosive promixity-fuse, solid propellant booster and liquid propellant sustainer capable of Mach 3.5. Range of 40-50 kilometers and max ceiling of 18,000 meters.
- 10. SAM-3 (NATO code name Goa): two-stage, short-range surface-to-air missile. High-explosive, proximity-fuse missile with solid propellant booster and sustainer rocket capable of Mach 2+. Range of 25 kilometers and ceiling of 13,000 meters. ***
- 11. SAM-6 (NATO code name Gainful): single-stage, fully mobile surface-to-air missile. High-explosive, proximity- or impact-fuse, rocket-ramject engine missile capable of Mach 2.8. Maximum high-altitude range 60 kilometers and low-altitude maximum range of 30 kilometers and ceiling of 18.000 meters.
- 12. AT-3 (NATO code name Sagger): portable surfaceto-surface guided antitank missile. A wire-guided, line-of-sight, solid propellant, two-stage missile with a range of 500-3,000 meters. ***
- 13. RPG-7: antitank grenade launcher with a rocket-assisted HEAT round having an effective range of 300-500 meters and capable of penetrating 320mm of armor plate. ****
- 14. ZSU-23: four-barrel 23mm automatic low-level antiaircraft gun with a rate of fire of 3,400 round/minute. It has an effective range of 2,000/2,500 meters.
- 15. 7-34: medium tank with an 85mm gun and two 7.62mm machine guns manned by a crew of five (commander, qunner, loader, driver, and hull gunner). *****
- 16. T-54: main battle tank with a 100mm rifled-gun; two 7.62mm machine guns and one 12.7mm antiaircraft machine gun. Manned by a crew of four (commander, gunner, loader, and driver.)
- 17. T-55: main battle tank with same armament as the T-54 less the 12.7mm antiaircraft machine gun.

Improvements over the T-54 included a more powerful engine and modified transmission, stabilized gun platform, and increased ammunition capacity. Manned by a crew of four.

- 18. T-62: main battle tanks developed from the T-55. Armament included one 115mm smooth-bore gun, one 7.62mm machine gun, and one 12.7mm antiaircraft machine gun. It has a crew of four. Improvements over the T-55 included a larger engine and improved transmission, increased range, improved suspension, and fully stabilized gun platform. *****
- 19. P-12 (NATO code name Spoon Rest-A): early warning, very high frequency radar used in conjunction with the SAM-2 Guideline missile. Mobile in two vehicles one carrying the generator and the other carrying the antenna array and radar consoles. ***

Israeli

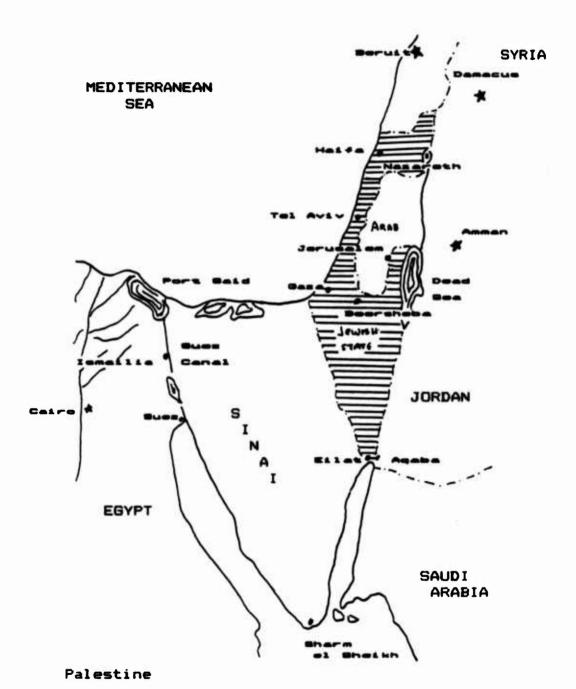
- 1. F-4 (NATO code name Phantom): Single- or dual-seat all-weather interceptor and ground attack aircraft. Supersonic, twin-turbojet engine aircraft with external mounted 20mm gun and underwing pylon attachments for assorted air-to-air and air-to-ground munitions and missiles. *
- 2. A-4 (NATO code name Skyhawk): single-seat light attack aircraft. Subsonic, single-engine aircraft armed with two 20mm cannons and wing pylons for assorted air-to-ground munitions. *

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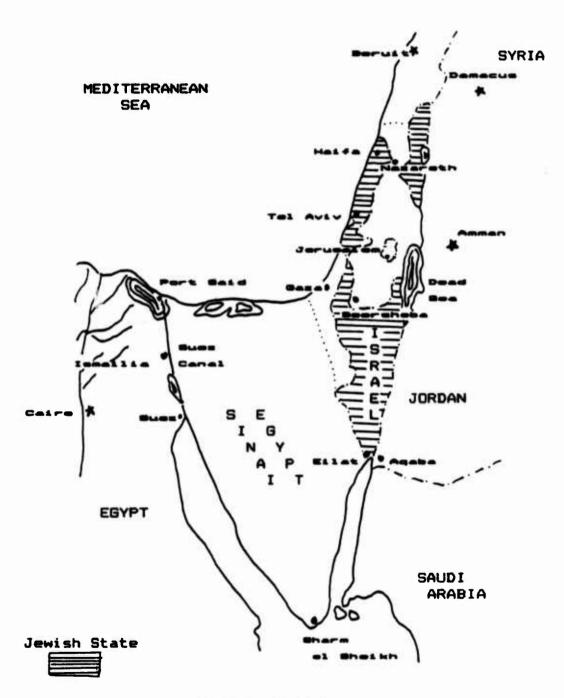
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 Phblishing Company Incorporated (1983).

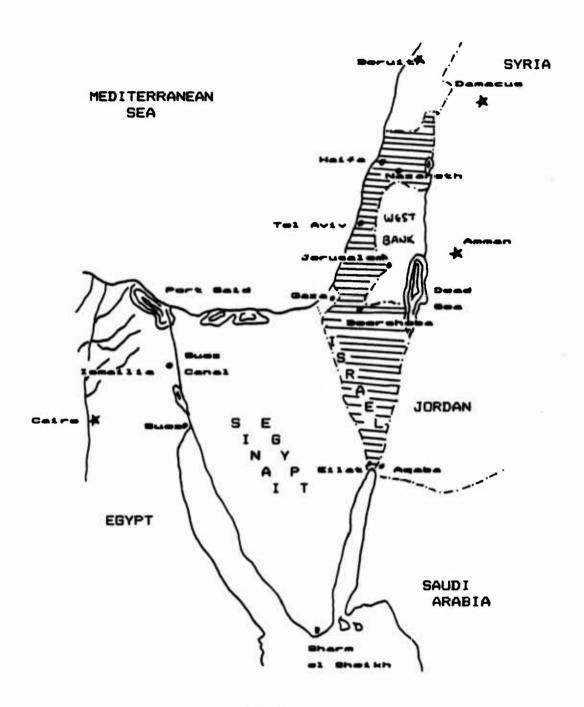
APPENDIX 2



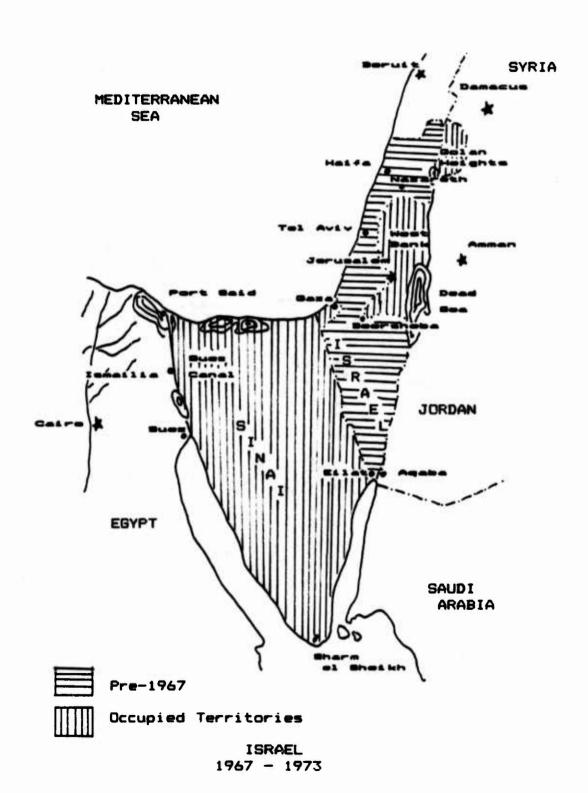
Pre-1947 PALESTINE Under BRITISH MANDATE



UNITED NATIONS PARTITION PLAN 1947



ISRAEL 1947 - 1967



NUMBER OF INCIDENTS INITIATED BY EGYPT, MARCH-DEC 1949
(Breakdown by months and types of incidents)

Appendix 2-5

	-	rter	2.4	ght			-		
	sh	e111ng	950	-	arti1	1000	ot	her	total
Month	•	×	•	×	•	×	•	×	•
Merch		_	71	-5	4	7	7	•	04
April	1	< 1	202	40	149	34	23	5	475
May	1	< 1	157	40	43	27	10	4	231
June	4	1	71	1.	311	77	1 🖷	=	404
July	47	13	85	24	207	50	14	5	385
Aue	207	41	225	44	72	14	-	2	515
Copt	107	42	104	42	54	13	1.9	4	440
Oct	145	24	345	54	117	1.	1.55	2	442
Nev	110	22	231	47	134	20	1 -	4	475
Des	75	21	242	93	113	25	11	2	441
Total									
Mar-Jul	83	3		43	754	47	74	=	1549
Total									
Aug-Dec	744	30	1227	40	474	17	72	3	2541
Total	017	20	1075	44	1250	30	146	4	4110

SCURCE: Years Par-Simon-Tov, The Israeli-Egyptian War of Attrition, 1747-1770 (1780): Table 4-2, page 74. Citing IDF spekeeman, MER (1747-70), p. 147

NOTES. Mer-Jul time frame-IAF had not been introduced. Aug-Doc time frame-IAF introduced into war. The table shows the reduction of artillery related casualties after the IAF was introduced, while everall casualties increased. With the IAF focusing mainly on artillery, the mobility of the small arms and morter could account for the increase in casualties to these weapons. Another ensuer to the increase in small arms casualties could be the Egyptien ability to adjust quickly to the new Israeli military element intoduced into the war. While the introduction of the IAF did not reduce casualties, it did reduce the qualitative and quantitative advantage of the Egyptiane.

Appendix 2-6

NUMBER OF INCIDENTS INITIATED BY EGYPT, Oct 49 - Jul 70 (Preakdown by menths and types of incidents)

		mer	ter	11	ght					
		ehe	11110	-	•	art11	1 ory	oth	-	totale
Mon	L h	•	×	•	*	•	×	•	×	•
Oct	49-	_								
Feb	70	877	24	1124	44	441	24	75	4	2427
Mar	70-	•								
Jul	70	2109	38	475	13	1172	30	0 2	2	2050
Tet	1	2404	43	1617	27	1013	20	177	2	4205

ef Attrition, 1767-1770 (1780): Table 6-2,
page 170. Citing IDF spokesman, MER (1767-70),
p. 167

IDF CABUALTIES ON THE CANAL, Det 49 - Jul 70

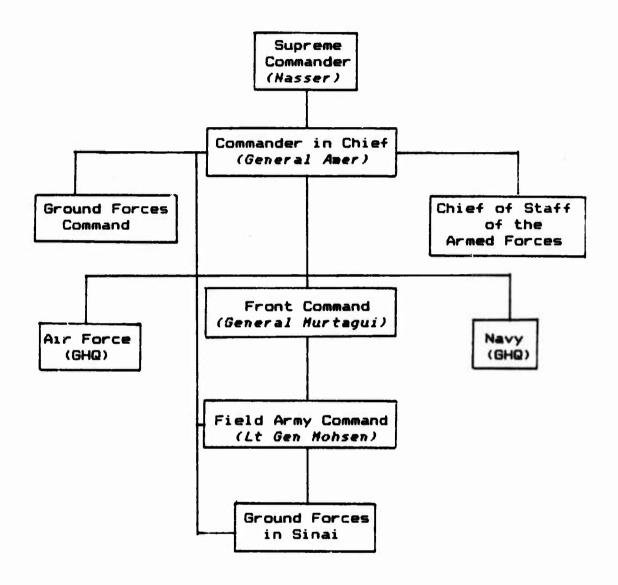
70	52	•	44
70	40	14	44
70	77	34	43
70	•	27	42
70	41	7	34
Total	210	57	157
70	37	1.	30
70	30	•	26
47	32	13	17
47	41	12	2₹
47	30	11	47
t h	Cacual ties	K111 md	Waunda
	49 49 70 70 Tetal 70 70	AT SE	## Gasualties Killed ## 38 11 ## 41 12 ## 32 13 70 30 4 70 57 19 Total 218 59 70 41 7 70 69 27 70 70 40 14

Bource: Ber-Simen-Tov, War of Attrition: table 4-3, p. 171. (Citing IDF spokesman, MER (1949-70), p. 172.

NOTES: Increased artillery activity after the Seviets entered the war in early Mar produced increase in IDF casualties: STX increase in Egyptian firing with increase of S6X in killed and S7X increase in wounded.

Appendix 2-7

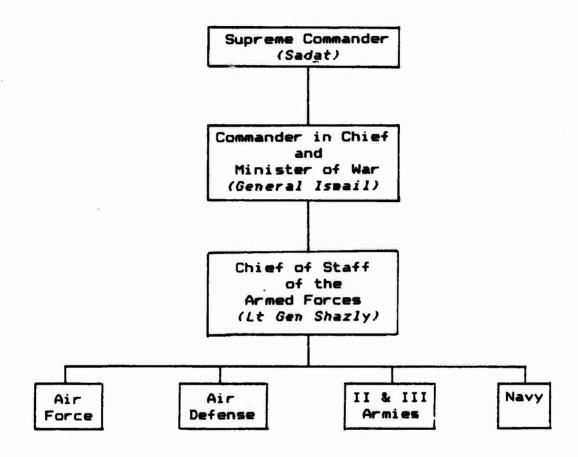
Command and Control in the Six-Day War



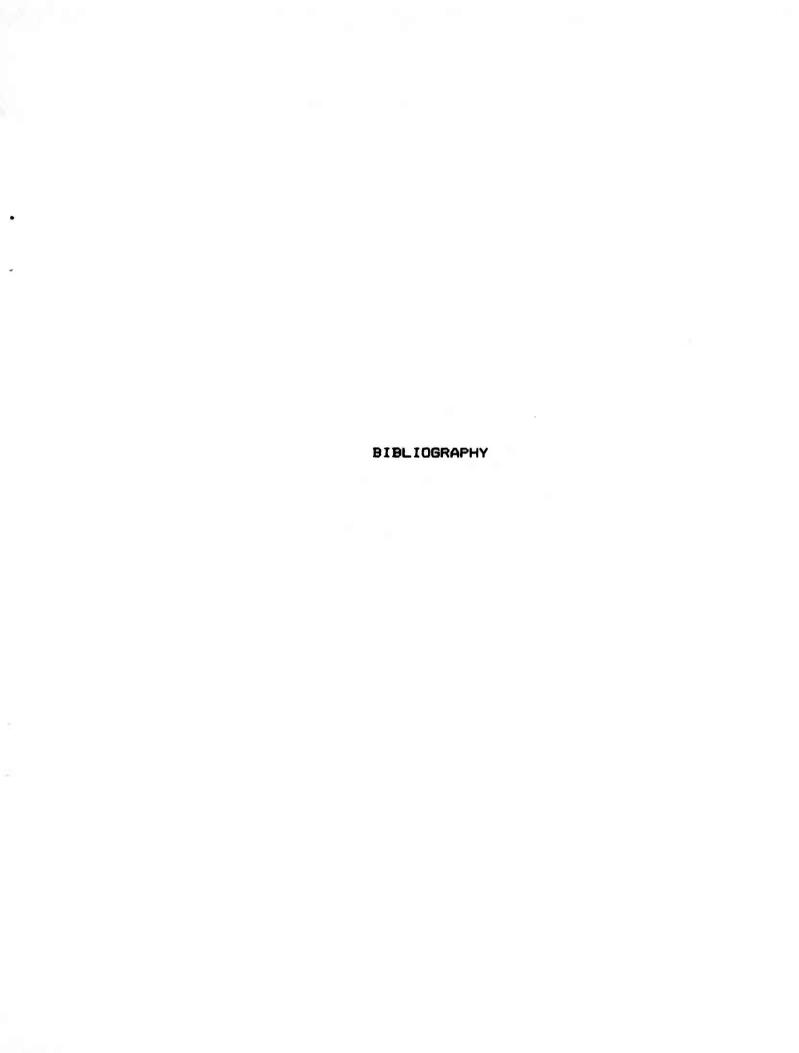
Source: George W. Gawrych, "Egyptian High Command in the 1973 War: An Historical Perspective" (undated): Chart 4.

Appendix 2-8

Command and Control Preceeding the October 1973 War



Source: George W. Gawrych, "Egyptian High Command in the 1973 War: An Historical Perspective (undated): Chart 5.



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